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ABSTRACT

The manual on residential farmer training provides guidance to the extension staff of all agencies concerned with rural development, with special reference to the principals and teaching staffs of training centers, and the informational and training needs of the smaller farmer. The manual was prepared as a result of recommendations made by participants at national seminars and workshops held in the following nine countries in east-central and southern Africa: Ethiopia, Uganda, Kenya, Tanzania, Zambia, Malawi, Swaziland, LeSotho, and Botswana. It deals mostly with residential farmer training, although some reference is made to day centers and nonresidential training. Some of the topics dealt with include physical facilities, staffing, recruitment, program planning, courses of instruction, and evaluation. Information about residential farmer training operating in the nine above-mentioned African countries is appended. A comprehensive bibliography is also included. (Author/NJ)

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TRAINING FOR AGRICULTURE
Special Supplement

FARMER TRAINING
IN
EAST-CENTRAL AND SOUTHERN AFRICA

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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TRAINING FOR AGRICULTURE
Special Supplement

FARMER TRAINING
IN
EAST-CENTRAL AND SOUTHERN AFRICA

by
Cyril Barwell

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 1975

VT 102 426

FOREWORD

Among the recommendations of the United Nations World Food Conference, held in Rome in November 1974, was the following:

> "that priority be given to, and increased resources made available for, the development of agricultural education and training at all levels, in order that the required training programmes can be provided - including training of research and extension workers in management techniques, special basic and in-service technical training for graduate and middle-level extension personnel, and farmers' training, including programmes for rural women and children, aiming at the achievement of an integrated educational system for the rural population within an appropriate political and social framework."

The words "farmers' training" might reasonably have been underlined in view of the potential of this activity for promoting increased output and productivity on small farms.

The East-Central and Southern region of Africa is one in which some notable work has been carried out in this field in recent years. The author has been closely concerned with farmer training activities in nine countries of the region, in which he has been FAO Regional Adviser for the past decade. Previously, he was with the Kenya Ministry of Agriculture, spent four years as Principal of a large farmer training centre and was subsequently responsible for the general administration of 30 training centres in Kenya.

The task involved between the point when a decision is made to institute a programme of farmer training and its subsequent realisation and consolidation is quite a formidable and complex undertaking. Accordingly, it is gratifying to find the author's enthusiasm for, and knowledge of, his subject fully supported by "how-to-do-it" approaches, in their technical, social and administrative contexts.

This manual should have the widest possible publicity in the African continent where agricultural education and training is considered as a principal moving factor to assist the peasant farmers toward progressive agricultural development.

The author appreciates the persistent faith of the African peasant on self-reliance and his willingness to participate with full awareness and knowledge in the economic and social progress of his country.

Meaningful and purposeful development will only come about with the awakening and effective participation of the peasant farmer and his family in what is designed to be a development programme tailored to meet the needs and wishes of the community. International civil servants who, with devotion and involvement, attempt to understand the conditions obtaining in the continent, especially the experience, value and cultural background of the peasant farmer, will succeed in their endeavour to create a climate of understanding and self-fulfilment of the peasant farming population, for increased production and productivity of the agricultural sector in Africa.

With the current emphasis on the great need for increased "transfer of technology" in relation to the level of the world's future food supplies, farmer training will doubtless assume an increasing importance in many regions of the developing world. This account of some African countries' achievements in this field to date will, it is hoped, serve to stimulate and guide those who propose to embark upon undertakings of a similar kind.

Much of the field work, as well as the preparation and publication of this manual, have been made possible by the generous financial aid of DANIDA (Danish International Development Agency), which is continuing to support this programme in the region.

M.C. Mensah
Assistant Director-General
Regional Representative for Africa

May, 1975.

PREFACE

This manual has been prepared as a result of recommendations made by participants at national seminars and workshops held in the following nine countries in East-Central and Southern Africa: Ethiopia, Uganda, Kenya, Tanzania, Zambia, Malawi, Swaziland, Lesotho, Botswana.

The purpose of the manual is to provide guidance to the extension staff of all agencies concerned in rural development, with special reference to the Principals and teaching staffs of training centres, and the informational and training needs of the smaller farmer. Out of the 149 training centres and 16 planned in the region, only two are aimed at large-scale farming. (See Appendix II).

The challenge to agricultural education at the farmer level has never been greater than at the present time; this challenge is intensified by inflation, rising prices, steady increases in population and dwindling natural resources.

Rapid agricultural development in all the countries concerned has resulted in unavoidable instability of staffing arrangements; constant changes have often prevented staff from gaining "on-the-job" experience. During the pre-service training, little instruction is given on the principles of residential farmer training as an intensified form of extension. For this reason it is believed that a manual or handbook on residential farmer training will be welcomed.

Some of the information contained in the manual may already have been overtaken by events in developing Africa, and revision will be required in due course. It should be noted that it deals mainly with residential farmer training, although some reference is made to day centres and non-residential training.

A comprehensive bibliography is included to assist further reading. The terminology and abbreviations used will be found in Appendix XI.

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CHAPTER I

SYSTEMS OF RESIDENTIAL FARMER TRAINING

Residential training centres have been established for the training of adult practising farmers, both male and female, farmers' wives, local leaders, staff and youth in various parts of the world. East-Central and Southern Africa, however, is perhaps a region in which there has been as much activity as anywhere in the developing world. In some countries first priority was given to staff training, both pre-service and in-service; in others the priority was for practising adult farmers. No two countries, or even regions, may have the same priorities, but one of the main essentials of a training centre is that it should be flexible in purpose. A training centre should have the ability to train any section of the community it serves, as required by the extension or training officers.

In spite of the mineral wealth of some of the nine countries concerned, agriculture is still the main industry in all of them and, in view of this, it is essential to have facilities for training all sections and levels of the community. Farmer training is necessary for the national leaders and politicians (the majority are also farmers, or at any rate land owners), as well as the ordinary farmers.

Direct or Indirect Training of the Farming Community

As indicated later in this publication, many centres have very limited residential accommodation to offer to large communities. It is, therefore, often better policy to train the farmers indirectly, particularly where there are a number of local centres for day courses where staff and leaders can participate in training farmers at the local level to achieve a multiplier effect.

Well-planned refresher courses on a "campaign basis" to equip the staff to produce a greater impact in a short time are often far more effective than training a few farmers in the relatively short period available. "Campaign type" courses are even more important when training is carried out on a seasonal basis compared with teaching non-seasonal or general agriculture types of course. This point will be amplified later.

Types of Training Centre

Apart from Kenya which has two large-scale farmer training centres, the majority of the centres in the region serve small-scale farmers in areas of medium to high potential, with corresponding population densities. Exceptions to this are a number of centres in semi-arid regions serving ranching areas of medium to low potential with poorly developed systems of land use and livestock management, and with low population densities and poor communications.

Many of the areas are making a rapid development from subsistence type economy to a cash economy with well cared for cash crops and productive livestock. Centres have been developed on a district basis as an essential part of the field extension service.

Levels of Training

In most countries the training centres are built at a district level only, but in Zambia and Malawi there are two levels:

a) Provincial or regional farm institutes

b) District or divisional farmer training centres

Farm institutes are usually built to a higher standard than the farmer training centres and often have more residential accommodation. In Zambia (as will be seen in Chapter II), first priority has been given to the farm institutes; the farmer training centres were developed later.

Farm Institutes

In both Zambia and Malawi the original policy was to use the provincial/regional farm institutes for in-service and, in some cases, pre-service training of staff. In Malawi, the Likuni Farm Institute was also used for selection to determine aptitude and suitability of candidates for pre-service training. This policy has been largely followed, but from the start they have also undertaken the training of farmers from the immediate area around the institute. One of the advantages of superior-type farm institutes at regional level is that they can cater for a much greater variety of participants.

Crop Husbandry and Animal Husbandry

In the early days of small-scale farmer training, the main emphasis was on crop husbandry, and animal husbandry was not well covered. This was reflected in both the composition of the staff at the centre and the course content. In some cases, the training centres had no livestock. This state of affairs was sometimes aggravated by rivalry between agriculture and veterinary services.

The introduction of high priced cash crops undoubtedly justified this policy in many areas; however, with the wide-scale introduction of exotic and productive cattle, animal husbandry is now being given a higher priority.

Principals and advisory committees should not be content until training centres are capable of teaching all aspects of crop and animal husbandry, in keeping with district policy.

Farmer Training in Arid and Semi-Arid Areas

In low rainfall countries such as Botswana, and in the semi-arid and arid areas of other countries, the approach has to be very different from the high-potential, small-scale farming areas. In these conditions of scattered population, poor communications and inadequate water, a mobile unit approach is essential to maintain contact between the population and the training centres.

Mobile Units

There are many types of mobile unit in use, but the policy is the same in so far as the teaching is taken out to the people rather than bringing the people in to the teaching. Generally speaking, the people in these areas live on animal products and either cannot, or will not, leave their herds, and often the distances are too great to travel to training centres. The success of any type of mobile unit depends on keeping the staff contented and the units should have a base at either a residential centre or a demonstration ranch. The units should return to base at regular intervals for supplies and, where necessary, for changing the personnel.

In Botswana, small units at which ranchers are resident for about two weeks are being developed at the demonstration ranches. These are financed by grazing fees, or mobile educational units are based on the ranches and carry out the recruiting and may transport the farmers to and from the ranch.

This system is found to give the drivers/demonstrators of the mobile units greater interest in their work. The owners of the herds can be brought into the ranches to demonstrate the points being taught in the field.

Farmer Training for Large-Scale Farmers

The majority of the training centres are an essential part of the district extension services in the traditional African farming areas. The size of the family holding was determined by the ecology and farming system of the area and also by the amount of land the family could cultivate by traditional methods. This resulted in most of the holdings being small. Depending on the potential of the area and the population pressure, they varied from one or two hectares up to fifty hectares. These small-scale farmers are catered for by the district training centres.

In Kenya, however, a new class of farmer has emerged. Individuals, groups and cooperatives have purchased large-scale farms, plantations and ranches from the previous expatriate owners. These range in size from two to three hundred hectares and up to several thousand hectares in the case of ranches. The successful operation of these large-scale enterprises requires experience and knowledge of a new range of techniques and skills. Apart from farming skills, these new farmers require increased knowledge of business methods, farm management, mechanization and marketing.

In order to cater for these large-scale farmers in Kenya, two training centres have been established:

1) Nyahururu large-scale Farmer Training Centre
2) Eldoret large-scale Farmer Training Centre

Both these centres offer a one-year course for farm managers and a variety of short courses of up to two weeks for local farmers. For example, in 1973, Eldoret Farmer Training Centre trained 42 farm managers selected from over 200 applicants. It also conducted short courses in the following subjects: 82 one-week courses on farm mechanisation, with 84 participants; and one-week courses on pigs, poultry, farm management and cooperatives. Suitable applicants from all over the country attend these courses.

Multi-Purpose Training Centres in Coordinated Rural Development

In the early days of district-level training centres, there was a tendency to build single-purpose training centres based on one department or ministry.

Uganda was the first country to depart from this policy when it built its first district farm institutes. The largest catered for agriculture, cooperatives and community development training, resulting in a much more coordinated and integrated approach to the training requirements of the district. This example was followed in th majority of countries and many of the existing centres now have a multi-purpose role.

In Kenya the trend has been carried a stage further and two district development centres are being established on an experimental basis. The Kenya Board of Adult Education has issued the following statement on the proposals:

> "There is an urgent need for a more coordinated approach to rural training. Residential institutions are at present controlled and run by the Ministry of Agriculture, local governments cooperating with the Department of Community Development, the National Christian Council of Kenya, other religious organisations and some voluntary associations. It would appear that a number of serious problems arise from this uncoordinated approach to rural training of adults, such as:
>
> 1. Duplication of services in adult education.
> 2. Minimal relationship between rural training and extension services geared towards planning priorities.
> 3. Inadequate career structure through paucity of staff within individual institutional provision.
> 4. Under-capitalisation on teaching materials and equipment.
>
> The idea of integrating government activities in rural training and extension work has gathered momentum with full government support. Action has been taken to the effect that multi-purpose training centres are to be developed. To this end the Government has already taken action to establish two such centres, Matuga and Embu, on an experimental basis and these centres have been named 'District Development Centres'.
>
> **District Development Centre**
>
> "The essence of a district development centre is to bring together under one roof within each district all government activity in local extension work, rural training and adult education. In concrete terms, the main purpose of a distric development centre is to maximise educational impact in any one district in orde to raise the general level of economic activity. Furthermore, a district development centre is, and should be, a focal point for integrating field extension work and be a centre which is outward-looking and whose curriculum and course structure is firmly related to local follow up and field work in relation to district needs.
>
> "The concept of a district development centre is thus a simple one and is essentially an exercise of integrating, coordinating and developing services which in many cases already exist in our districts. For a district development centre to serve the people, its structure must be related to:
>
> 1. Local population needs.
> 2. Existing facilities, i.e. centres already built.
> 3. The suitability of agricultural land and how typical this is for local district demonstration purposes.

Courses to be Organised at the District Development Centres

"Courses to be organised in district development centres will include such fields as:

1. Agricultural and farmer training courses.
2. Health education courses.
3. Cooperative training courses.
4. Businessmen's and traders' training courses.
5. Local leaders' training courses.
6. Community development leaders' courses.
7. Local government personnel courses. (councillors' courses, chiefs' courses, assistant chiefs' courses)
8. Social welfare staff courses, etc.
9. Youth leadership courses.

Objectives of District Development Centres

"The essential features of the district development centres are:

1. Their curricula should be related directly to the immediate and long-term needs of the district to be served.
2. The district development centres should provide facilities to both government and voluntary agencies and both sectors should liaise in order to ensure comprehensive planning and extension at district level.
3. The district development centres should be seen as, and be developed to allow for, ensuring maximum involvement of the local community which they serve. As far as possible, the local community must feel the district development centres to be 'theirs'.
4. The district development centres should be the focus of all extension work in the district served so as to obtain a comprehensive and coordinated approach to achieve maximum impact throughout the district, whilst the district development committee has the planning function.
5. The district development centres should relate their educational activities primarily to economic fields but the economic training should have a cultural and social content.
6. The district development centres should, as far as possible, cater for the needs of youth as well as the adult community in order to develop a continuous approach to educational activities.
7. The district development centres should be able to determine priorities, coordinate and perhaps control any other rural informal educational institutions and activities developed at both district and sub-district levels. The district development centres should be the district apex of rural informal educational activity."

CHAPTER II

ORIGIN AND AIMS OF RESIDENTIAL TRAINING CENTRES

The report of a seminar held in Keyna at Egerton Agricultural College, in March 1965, gives the following brief summary of the origin and aims of residential training centres:

> "It is recognised that the aim of any extension service is to teach the farming community improved farming practices. While it is generally accepted that the individual approach is the most effective extension method, it is costly in time and personnel. As a result of this, various methods of a group approach have been tried out and, for many years, the village-type meeting was the recognised method of contacting and instructing the people. This served its purpose on a broad and general approach but had many disadvantages as it was difficult to obtain sustained attendance to teach any one subject in any depth.
>
> "In search of more efficient methods of group teaching, several extension services in Africa have developed various types of farmer training institutions. Since it was the extension service that developed the institutional approach as a specialised extension teaching method, it is essential that at all times a close and intimate relationship be maintained between the institution and the extension service. There must never be any suggestion of the institute in any way divorcing itself from the extension service. It was also stressed that the institute must maintain the closest possible liaison with such agencies as cooperatives, community development and other social development services.
>
> "In Uganda, some of the institutes are combined with community development and cooperative training units and this has proved very successful and popular. It was suggested that developing countries with shortages of staff and funds will have to accept the principle of some form of combined training institution. This may well lead in time to 'rural institutions' of a multi-purpose nature to serve the interests of an integrated approach to rural development. This will avoid the duplication of costly capital installations and all agencies concerned can share the overheads and common services."

Uganda is credited with being the pioneer of residential farmer training, with the opening of the Teso District Ploughing School at Kumi in 1910. However, the policy of district farm institutes originated at a policy meeting in 1954, but shortage of funds delayed the opening of the first district farm institute until 1960.

Kenya felt the need for both staff and farmer training in the 1930s and training institutes were established at Bukura, Kisii and Baraton. Apart from staff training, these institutes had a number of established smallholdings (16 in the case of Bukura), and local farm families were moved to the holdings for a farming year. They farmed the holdings under the supervision of the staff and also attended lectures and demonstrations. The limiting factor was the very small number trained in relation to the total population, and an evaluation showed that only 40 percent actually returned to farming. In 1957, the first farmer training centres were built in Central Province, the original institutes at Bukura and Kisii were rebuilt as farmer training centres and the original smallholdings converted into commercial farms.

In Tanzania, the first training centres were built in 1962 followed by a steady year by year increase.

In Zambia priority was given to the establishment of the provincial farm institutes from 1961 onward, and the first farmer training centres were built in 1966.

Malawi opened its first farm institute at M'Mbelwa in 1963, and this was followed by rapid development of divisional training centres and two more farm institutes. At the same time, Malawi developed an extensive programme of non-residential rural training centres for day courses. The first of these was opened in 1967, and there has been a rapid increase to 47 by 1973.

Swaziland built its first centre for short courses in 1966. This was built on the campus of the then Swaziland Agricultural College and was later absorbed by the University. Further centres were built in 1968 and 1970.

Lesotho. The first training centres were built in the low country at Leribe and Mohale's Hoek, followed by Qacha's Nek in the mountains. Matela Farmer Training Centre was built in 1970 bringing the total to four, and one more is to be established in 1974/75.

Botswana. The first rural training centre was opened at Sebele in mid-1967 and held its first courses in 1968. Mahalapye Rural Training Centre was converted from an old staff training centre in 1969 and started courses the same year; the centre at Maun was completed in 1974.

See Appendixes I, II and III for further information regarding residential training centres in the nine countries.

CHAPTER III

PHYSICAL FACILITIES FOR RESIDENTIAL TRAINING CENTRES

Locality

If new centres are required or old centres need to be re-sited, the following points are worth noting, derived from "A Study of Farmer Training in some English-Speaking Countries of Africa" by A.E.G. Markham (FAO, Rome, 1967):

"(a) Proximity to the district agricultural extension office and to the district administrative centre.

(b) Proximity to the centre of the district road reticulation.

(c) Facilities for connection to electricity, water mains and telephone services.

(d) The acquisition of adequate land which is agriculturally suitable and which causes the minimum of disturbance to the local population.

(e) Availability of medical services for both staff and students.

(f) Availability of educational facilities for the children of the staff.

(g) The presence of shops, social facilities, markets, help to acquire and retain staff and staff families, and provide an added incentive to resident students.

(h) Other agricultural institutions, such as agricultural research stations, demonstration farms and agricultural education institutions, if nearby, may assist with sharing equipment, specialist services and part-time lecturers.

(i) The existence of an already developed farm is advantageous, particularly in areas of tree crops which take many years to reach maturity and bearing.

Government-owned land, sometimes with existing buildings and services, has often in the past been the sole criterion for selection. This may have led to unsatisfactory siting of centres and has sometimes increased recurrent expenditure. However, with the shortage of development capital and the desire to make full use of existing assets, there is often no alternative. It should be remembered that the centre may have to serve many purposes over a long period of time and therefore a good site is a very great asset."

While the training centre should be as near to the district agricultural extension office as possible, care should be taken on this point. In the majority of cases, the DAO's office is in a town, and in rapidly developing Africa, a number of centres that have been too close to a town have become absorbed by it. Cases have arisen where training centres have suddenly found themselves subject to township regulations restricting the keeping of livestock, etc. Where this occurs, the training centre should take steps to move out and come to an arrangement with some urban-based organisation to take over the buildings. The new site should be carefully chosen in relation to the farming community to be served, avoiding considerations of local politics or personal interests.

Siting Committees

When a training centre is sited, or re-sited, this should be presided over by a fully representative siting committee. Wherever possible, the committee should have representatives of the Ministry of Works (Roads Division), and somebody concerned with long-term planning. It is important to be aware of long-term plans. A case occurred of a training centre cut into two by a major road; in another, the centre was on the site of a proposed railway station. It is not possible to foresee all long-term circumstances, but the development plans of other organisations should be studied carefully.

Some countries are beginning to realise that the "town-oriented" District Agricultural Officer is not the best answer to serving the rural community. It is felt that the DAO should be situated so that he does not have to say to the farmers "Go back to the land" from the comparative comfort of his town office. Where, however, it is unavoidable for administrative purposes to meet the need for proximity to other government departments (especially for example where there is an integrated rural development operation involving non-agricultural activities), a field office should be provided for the DAO at the training centre.

As Markham has pointed out "sometimes the existing buildings and services have often in the past been the sole criterion for selection". This was true in 1967, and is true today, and it has resulted in some very badly sited centres, but, at the same time, as he points out, shortage of development capital and the desire to make full use of existing assets often means there is no alternative.

Malawi has been able to create some satisfactory divisional training centres from old tobacco barns, unused road camps and other disused buildings. These may not be perfect, but they are playing an important preliminary role and are gradually being upgraded as funds and circumstances permit.

Services

The points listed by Markham under (e) medical, (f) educational and (g) social facilities, are becoming increasingly important to both course participants and staff. If the DAO and Principal wish to have a contented and efficient staff, and satisfied participants, every effort should be made to provide these amenities.

Telephone

This will be referred to later as it is a vital factor in both liaison with the district and the successful recruitment for courses.

Water and Electricity

An adequate water supply is an essential at any training centre, otherwise it is not possible to comply with the health regulations applicable to the operation of a training centre for the public. A number of surveys have revealed inadequate or only seasonal supplies of water. A well-constituted siting committee for a residential training centre should have a health representative with the responsibility of ensuring that the potential water supply is adequate in quantity and quality.

A mains supply of electricity is highly desirable. However, unlike water, it is not an absolute essential. A survey of farmer training centres in Malawi in November 1972 showed that of twenty-one divisional training centres, 5 had mains supplies, 3 had generators and 13 had no electricity and used paraffin lamps. Apart from the general inconvenience of not having electricity, there is the restriction on the use of projected visual aids for instruction. Car batteries and small portable generators may be used to operate slide projectors, but, in general, it is a hindrance to the full use of transparencies. The lack of electricity is mainly felt in relation to the use of film projectors. The difficulty can be overcome to some extent by giving centres without electricity a higher priority for mobile units.

Where centres make their own electricity, it is essential that the generating equipment is properly serviced. This is only possible if the unit's log book is entered up daily by some responsible person nominated for the task, so that oil changes, greasing and other maintenance work is carried out regularly.

Buildings at Residential Training Centres

By experience, each country has found the best type of building for its climatic and economic conditions. Detailed examination of this subject is found in the following publications:

1. *Farmer Training in East Africa* - Report of a seminar held at Egerton Agricultural College, Kenya, March 1965. FAO, Rome, 1966.
2. *A Study of Farmer Training in Some English-Speaking Countries of Africa*, by A.E.G. Markham,. FAO, Rome, 1967.

The following comments and suggestions may be of value to those concerned with residential training centres.

Size of the Centre

There are two main aspects to most of the centres:

a) *The teaching and administrative side* - including the administrative buildings, the staff housing, the facilities for the participants, such as dormitories, ablutions, classrooms, dining hall, kitchen and recreation; with an area for demonstrations and, in some cases, a demonstration smallholding.

b) The farming side, which in some cases may include the demonstration area, but mainly consists of the land set aside for farming activities, as such. This subject is discussed in Chapter XII.

The Teaching Side

At new centres, the teaching side should be kept as compact as possible, so avoiding costly upkeep of the grounds between buildings. Care should also be taken to keep the noisy kitchen at a suitable distance from the classrooms and administrative block. However, many centres have to deal with widely scattered buildings, and in areas of medium to high rainfall, these can be very costly to maintain satisfactorily. (In addition, farmers may be puzzled over the economics of a man with a mowing machine, cutting grass all day that is either not collected, or is thrown away!).

Wherever possible, it is necessary to utilise the land between buildings so as to avoid unproductive heavy recurrent expenditure. Among the methods used are the establishment of demonstration plots, fold units, calf paddocks, etc. Flower beds and shrubs certainly add to the appearance of a centre, but it should be borne in mind that the centre is for teaching down-to-earth practical farmers whose financial resources are limited.

Teaching Facilities

The following requirements for the classrooms and visual aids are derived from Markham's report :

> "a) Classrooms
>
> An economic and satisfactory design allows for a class unit of 25 or 30; windows are best set high to prevent distraction and also to allow sufficient wall space for displays. Double tables and chairs have been found the most suitable in practice, as they allow for the grouping of tables for practical work. A lecture table and chair are required, preferably on a raised dais, and there must be adequate cupboard space. A blackboard on the wall and a pull-down screen will allow for slide projection. Suitable electricity plugs must be planned, also suitable blackout or dim-out arrangements, with ventilation. The end wall opposite the blackboard should be covered in softboard for the display of posters, wallcharts, etc.
>
> b) Visual Aids Room
>
> Ideally, all classrooms should be capable of being used for projected visual aids, but often the cost of blackout and ventilation prevents this. In view of this, it is a common practice for a centre to have a visual aid room capable of a 'dim-out', but with adequate ventilation for the daytime use of projected aids. The visual aid room can also be used as a demonstration room for models, trade samples and specimens of all types."

These standards and principles are still very sound. There is a trend to teach smaller discussion groups with a less formal arrangement of the classroom, but this can be re-arranged in most classrooms. Few centres have separate visual aid rooms and many centres allow themselves to be defeated in producing dim-out conditions during daylight hours. This has resulted in the showing of slides in the evenings when most of the impact is lost, as they are not closely related to the lecture or discussion. With modern high-powered projectors and suitable blinds or shutters, it is quite simple to produce a satisfactory dim-out during daylight. However, where difficulty occurs, a rear-projection screen may be used. A collapsible but strong screen which gives good results (even in an open-sided farm classroom) without dim-out. When folded, it can be carried easily on the mobile cinema van and is suitable for both movies and slides, provided short-throw lenses are fitted to the projectors to fill the screen area. This subject will be discussed further under visual aids.

Markham has also covered the subject of farm classrooms very well, as follows:

> "A simple covered shed, opening at the sides, and with seating arranged in tiers (on a similar principle to wooden seating at football arenas or agricultural showgrounds), which can be used for a whole range of demonstration purposes, is most useful. The end wall opposite the seating can be fitted with a blackboard and in front of it a simple bench or table can be used for demonstrations. The open space between the table and front seats should have access from both sides and be large enough to accommodate a tractor, oxen harnessed to a plough or other implements, etc. An inexpensive building of this type can be invaluable for a wide range of demonstrations and especially during wet weather and during the heat of the day."

Properly used, this can be one of the most valuable teaching areas at the training centre. To attract the full attention of middle-aged adults at a demonstration, it is essential that they are seated in comfort, in the shade, and with good visibility. Although the actual demonstration may be held elsewhere, the farm classroom can still be used for questions and discussion without returning to the formal classroom. Unfortunately, few centres have farm classrooms and many demonstrations have been attended where less than 50 percent of the class had good visibility, and the majority were more concerned with the discomfort of standing in the sun than with the lesson.

The essentials of comfort, shade and visibility, can be carried further and at most centres there are shady trees under which simple benches can be situated for group discussions or for informal discussions during lunch hours and the evenings.

The Administrative Block

In building a new centre, the choice arises of making the administrative buildings part of the classroom block or detached from it. Existing centres have a slight bias toward separate buildings. Visitors and vehicles within sight or hearing of classrooms can be a distraction, as can dust in dry areas. A separate building also allows for expansion in the event of additional staff, etc. Many administrative blocks have insufficient or unsatisfactory storage space, and in the older centres, such amenities as staff rooms, staff toilets, etc. were not allowed for. They can be added more easily to a separate building.

Staff Housing

The size, type and rent of staff houses has always been very controversial. Zambia has overcome this at many of its centres because the only residential staff are a warden and one instructor; the remainder are district staff and are housed away from the centre.

There is much to be said for rent-free or subsidised housing at training centres, especially in countries where no staff housing (and therefore no rent allowance) is provided for extension staff. In some countries, extension staff may be posted to a training centre where, by comparison with field conditions, they have to pay rent, light and water charges and, in addition often lose their transport or safari allowance. These circumstances do not result in satisfied teaching staff.

In some countries, the controversy continues. The planners say that a house should be built to last for 50 to 100 years. But unless the rent is reasonable, the staff, the centre and the farmers will all suffer.

All training centres should have a guest house for visiting lecturers, even when close to a town. Much of the value and impact of a visiting lecturer is lost if, after his lecture, he immediately leaves for the nearest town. This allows for no informal contact between the lecturer and the participants which can sometimes be more valuable than the classroom period.

Dormitories

Those concerned with farmer training usually agree that the ideal accommodation is the two-bed cubicle. However, in the nine countries there is a very wide range of accommodation - from converted chicken houses with grass roofs and wooden bunk beds, to single rooms in regional farm institutes.

When building a new dormitory, consideration should be given to the following points:

1. Two small blocks are preferable to one big one because this allows for greater flexibility with mixed courses of men and women and makes expansion easier.
2. Cubicles can either have doors opening into a central passage or on to an outside verandah. The central passage is more expensive to build, but is preferable in cold and wet areas and when lavatories and ablutions are attached to the dormitory block.
3. The window between the beds should be sufficiently high to allow for a double locker and to avoid the need for curtains.

Converting Open Dormitories

In many cases, the DAO and Principal are faced with the problem of converting open dormitories into cubicles. Except in very hot climates, national seminars have usually been in agreement that open dormitories should be converted, even if the bed capacity is lowered. Much can be done to typical existing dormitories to effect greater comfort and convenience.

It is a good practice for the Principal and his staff to spend a few nights, at least twice a year, in the dormitories. There is no better way of discovering limitations than by experiencing them. Many dormitories have outdated wooden double bunks with cotton mattresses that are extremely difficult to keep in a hygienic condition. Money is well spent on introducing heavy-duty metal beds, with foam mattresses and pillows. All wooden furniture should be moveable, because built-in furniture is much more difficult to keep clean. There should be a concrete or metal slab, or wooden shelf, at head height to hold the suitcase of the occupant, and adequate clothes pegs should be provided.

Ablutions and Lavatories

Except in cases of possible water shortages, recently built training centres have the ablutions and lavatories built as part of the dormitory block. This is much more convenient than the system of separate ablution blocks some distance from the dormitory.

Ablutions should have the following facilities: wash basins with a shelf and mirror above and with ample clothes pegs. Shower baths should be in separate cubicles with taps situated in such a way that they can be regulated while standing outside the shower cubicle; a floor-level footbath. Clothes washing and ironing facilities should be provided, together with permanent clothes lines.

As previously noted, a number of countries are making funds available to improve the standards of some of the older training centres, and good ablution blocks should have high priority consideration in this context.

Dining Halls and Kitchens

It is quite common for training centres to be built under a phased programme; Phase I may cater for 30 beds, and Phase II for an additional 30 beds. In such cases, the hall and kitchen should be built to the ultimate planned capacity of the centre. Even outside phased programmes, kitchens and halls should be built to generous proportions, because training centres are nearly always extended in size over the years.

Dining Hall: The policy for the hall should be established before it is built. If it is to be used for meals only about two hours a day, it can be a very expensive capital item. The hall is often the only building on the compound that can seat all the students and staff; it can, therefore, also be used as an assembly hall for cinema shows, television and radio, and for recreational purposes generally. Moreover, it can be used for teaching, where appropriate.

Another function of the dining hall lies in its use for public meetings and for community social functions. This arrangement can do much to create closer relationships with the community and additionally is good public relations for the centre. These functions should not, of course, interfere with normal student meals, but the hall is often unused at weekends. This flexible use requires chairs rather than benches; the chairs should be robust, suitable for stacking, so that they can be easily moved from one building to another. If the hall is to be multi-purpose, there should be a raised platform at one end. In addition, it should be provided with lockable cupboard space for teaching aids, indoor games, etc., and it should be possible to shut off the access to the kitchen.

The kitchen staff work long hours at the centre, starting early and finishing late. They should not be made responsible for the hall, except before and after meals. For smooth running of the centre and for contented kitchen staff, the hall should be left clean and tidy last thing at night. The kitchen staff should not be expected to clean up the hall in preparation for breakfast.

Many dining halls lack facilities for washing before and after meals. The ablutions are often some distance away and two or three wash basins outside the hall are therefore very desirable.

The Kitchen: The kitchen is used for long hours and everything possible should be done to make it thoroughly functional and convenient to work in. A simple spacious layout is required to allow for the "flow" of food from arrival to preparation, cooking, serving and washing up. Many kitchens are badly designed and food on arrival is carried through to the inside store, carried out again to be prepared, and brought in again to be cooked. Some kitchens have massive built-in concrete tables that allow for no re-arrangement or flexibility.

An all-weather road should lead up to the kitchen for ease in unloading bulk rations. Fresh vegetables that require peeling, washing, etc. should be stored in a simple store outside the kitchen with expanding metal sides and there should be a covered peeling space, with water laid on. Ample double doors should lead to the dry and fresh ration stores, and these should be fly and rat-proof; expanded metal and fly gauze are very suitable materials. The kitchen office for ration ledgers, menus and ready reckoners, etc. can be either in one of the stores or as a separate room from which both the hall and kitchen are visible.

A suitable layout for the kitchen is to place the stoves down one wall, and the sinks and drying racks down the opposite wall. The movable, metal-covered food preparation tables can be placed in the centre of the kitchen and stools should be provided for working at the tables.

The type of stove will be decided by the most economic fuel available, bearing in mind that when fully costed, wood - even when grown at the centre - is not always the cheapest fuel. For cleanliness, electricity or bottled gas are best. Oil-fired steam cookers were widely used at one time, but were more difficult to operate and ran into maintenance problems.

Much can be done to assist kitchen workers. A small washroom and toilet should be available and they should be provided with protective clothing, either overalls or aprons. A radio should be supplied (if out of hearing of the classrooms), and all possible labour-saving methods used. The kitchen floor should be gently sloped to a drainage system along each wall so that the whole kitchen can be washed down with a hose.

A seldom-mentioned subject is the feeding of kitchen staff. It is a sound policy to allow the kitchen staff to be on the ration strength and to take their meals on the premises.

Kitchen Records: There are many different methods in use in the nine countries under consideration, but the essentials are the same for all. Auditors have to be satisfied that the food delivered from either the farm or local contractors is weighed in and entered in the ledgers. It should then be accounted for as used, according to the menu and the number of students fed. A ready-reckoner in ounces and pounds, or in the metric system, can save much time in calculating the rations to be issued. Any rations unsuitable for human consumption should be certified as such in writing by the Principal, with instructions for disposal. A record that is seldom kept is the arrival and disposal of containers such as sacks. These have an increasing cash value at the present time and should be recorded on arrival and on disposal to the farm or by credit note to the contractor.

In some countries, rations for the whole duration of the course are issued on the first day to the head cook. In other countries the rations are issued daily. Daily issues are recommended, as this avoids the temptation to hoard rations,and course numbers can vary with late arrivals and early departures.

Stores and Equipment

Appendix IV lists the stores and equipment for a 60-bed training centre built in Kenya in 1973. It is not suggested that all centres require this equipment, or that the standards will be applicable to all countries. However, it will serve as a check list.

Standards

The regional and provincial training centres in Malawi and Zambia are built to a standard that can cater for all sections of the community, from senior officials to small farmers. This is true of many of the modern district training centres in a number of countries. The long-term aim of all residential centres should be to provide facilities that are adequate to cater for all sections of the community they serve.

Standards should be such that all levels of staff are prepared to stay at the training centre. As mentioned earlier, the best evaluation of the facilities is that the Principal and his staff spend some days living as students in their own centre. It is often true that certain centres are not up to the standard for in-service staff courses and this state of affairs should be remedied as soon as possible so that staff may take pride in their local centre. This will also assist recruitment.

National seminars have repeatedly recommended the upgrading and improvement of existing centres: it can be seen from Appendix III that about 100 of the existing centres are from five to ten years old. Many of these have had little or no capital improvements to bring the buildings up to present-day standards and recurrent funds are often insufficient to replace obsolete equipment. The districts and farmers have made progress, but the training centres remain sub-standard.

It is strongly recommended that each residential training centre be subjected to a critical evaluation by the DAO and his staff, together with the staff of the centre. The regional or provincial staff should decide the order of priorities. In many countries there are very worthwhile and locally generated self-help projects to improve local amenities. These are usually related to formal education, medical services and water supplies, church projects, etc. Local farmer training centres should share priority status, especially in view of the fact that the majority of the population derive their livelihood from the agricultural industry.

CHAPTER IV

STATUS OF RESIDENTIAL TRAINING CENTRES AND THEIR RELATIONSHIP WITH EXTENSION SERVICES

In recent years, much concern has been expressed over the lack of cooperation and coordination between the staff of the district training centres and the staff of the district extension services. Farm institutes are supervised by training officers and, in many cases, they devote many of their courses to in-service and sometimes pre-service courses, which are usually longer in duration and do not require actual recruiting by the extension staff. In district centres, the main concern over the lack of liaison and cooperation arises from the recruiting or selection of farmers for courses.

The subject of recruiting will be dealt with later, but it is necessary to note that in almost all countries, recruiting is agreed to be the responsibility of the field extension services. However, when a course fails to attract participants, the staff of a training centre are apt to think it is a reflection on the centre itself. Poor communications often aggravate the situation. The purpose of this chapter is to try and analyse the reasons for the sometimes unsatisfactory relationships between the extension staff working in the district and the extension staff working in the centre which is located in their district.

This is not a new problem and has been covered in many publications, including those mentioned below:

1. Report of a Seminar held in Kenya at Egerton Agricultural College, 21-30 March 1965. FAO, Rome, 1965.
2. Guide to Extension Training by D.J. Bradfield, FAO, Rome, 1966.

3. Report of the Kericho (Kenya) Conference on Education, Employment and Rural Development, 25 September - 1 October, 1966. East African Publishing House, Box 30571, Nairobi, Kenya.
4. Marchan, A.E.G. "A Study of Farmer Training in Some English-Speaking Countries of Africa", FAO, Rome, 1967.
5. A Record of the Proceedings of a National Seminar on Farmer Training in Uganda, 15-25 September 1969. Paper by E.R. Watts of Makerere University referring to survey work undertaken by Odongo P.A.S. "Evaluation of Farmer Training in Lango District (Uganda)". Makerere University Library, Kampala, Uganda.
6. "Education in Rural Areas" - Report of the Commonwealth Conference on Education in Rural Areas, Ghana, 23 March - 2 April 1970. Commonwealth Secretariat, London.
7. The Role of Rural Training Centres in Problems of Rural Development in Botswana, by F.J.H. Pullen, Ministry of Agriculture, Botswana, July 1973.
8. National seminars and workshops organised by the FAO-Danish Programme for Assistance to Farmer Training held in the following countries: Ethiopia, Uganda, Kenya, Tanzania, Zambia, Malawi, Swaziland, Lesotho and Botswana, between 1969 and 1973 - Ministries of Agriculture or Rural Development.

The above publications all stress that the district training centres are an essential part of the district extension service and that they were created for the purpose of establishing local training facilities for the staff of all rural agencies; and also for supporting and assisting the extension staff by giving them opportunities to offer farmers an intensified form of residential extension.

It has, however, to be admitted that in some countries there is a fairly sharp division between the extension staff in the field and those in the training centres. This has resulted in a lack of cooperation and coordination.

The following circumstances are possible sources of poor cooperation, lack of liaison and misunderstanding:

a) The origin, establishment and status of training centres; and

b) The locality of the centre and communication with the district.

The Origin, Establishment and Status of Training Centres

As will be noted from Appendix III, the majority of the centres were built between 1963 and 1970. These were years full of change; two of the countries were already independent and five others obtained their independence during this period. Many new approaches and methods were being introduced, and it is suggested that in some cases the developments were too rapid, including those involving the establishment of residential farmer training.

Often the districts were not consulted sufficiently; and while the policy was understood at the top, it was not always understood at district level. Even recent surveys have revealed that in some areas extension staff were very vague about the principles of residential training and that some staff had never in fact visited the district training centre.

There were many instances of fine new centres given great publicity without full realisation that the extension staff believed this new approach to be competing with them rather than reinforcing them. Sometimes, enthusiasm over the new centres unintentionally ignored the field extension staff, and in some of the early evaluations residential training centres were given too much credit at the expense of the field staff.

It should never be taken for granted that the policy is fully understood. At all times and at all stages, field staff should be involved and fully consulted in the affairs of their centre.

In the majority of countries, farmer training programmes are definitely part of the extension service. They are usually in the division of the ministry with responsibility for all levels of extension. These extension divisions do not concern themselves with pre-service training, except at the lowest level of field staff, who may do a pre-service or induction course at the farmer training centre. They do not assume the responsibility of pre-service training at certificate and diploma levels.

However, in a few countries, farmer training centres are in a training division or research and training division with a much wider role than that of extension and farmer training. In these situations, the essential link with the extension service is not so strong as it should be. In one country, extension is in one ministry and farmer training in another. Under these circumstances, the district extension staff can, and do, look upon the training centres as something separate from their own organization, with a resulting weakening of the essential cooperation and coordination.

Locality of the Centre

Accepting that residential farmer training is an essential part of extension, then the district centre should be as near to the district extension headquarters as possible. This has been referred to earlier and the reasons for siting centres without sufficient regard to the ease of liaison with the district extension office has been noted. If the DAO is to carry out his role of supervision and assistance to the centre, and to benefit from the feedback from the centre, then it should be within easy reach of his office.

A summary of FAO surveys carried out over past years provides the following data on the distance between training centres and district headquarters.

Table 1

Extracts from FAO Surveys

Country and Year of Survey	No. of Centres	Kms. from Training Centre to District HQs.				Centres with Telephones
		1 - 7	8 - 16	17 - 24	Over 24	
Uganda 1969	15	1	4	1	9	5
Kenya 1974	29	10	3	5	11	18
Tanzania 1969	11	2	2	0	7	7
Zambia 1973	37	17	6	5	9	16
Malawi 1972	21	5	4	1	11	12
Swaziland 1971	3	1	0	0	2	3
Botswana 1971	2	1	1	0	0	2
Totals:	118	37	20	12	49	63

Since these surveys were made only one or two centres have changed their locality. It will be seen that about 33 percent of the centres are within 8 km. of the district headquarters, and 50 percent within 16 km. However, in the over 24 km. group, some cent are as much as 80 to 96 km. away from the district office.

Centres within 16 km. of the district headquarters should find it possible to maintain very close liaison and cooperation, to the mutual benefit of the DAO and the training centre. However, for those centres further afield, it is unrealistic to expect the same close cooperation and a different understanding should be established, such as monthly or quarterly visits. It is known that the DAO is a very rare visitor at some training centres.

The distance factor can be overcome to some extent if both parties are in touch by telephone, and it will be noted that 50 percent of the centres have telephones. In some countries the situation is much better now (1974) in this respect than the surveys indica As will be discussed under "Recruiting", a telephone link can save a great deal of frustration, funds and wasted effort. At every centre, however remote, a telephone (or radio link) should be a high priority. The apparently high cost of installing a telepho can soon be saved by a reduction of transport costs. However, owing to individual ministry priorities over finances and revenues, this point is not always taken into accou

These problems of locality and communications are improving as new and better road are built and telephone services improved. In some countries, consideration is being given to establishing the district extension headquarters at the training centres. This could give the districts a chance to overcome some of the existing distance and communication problems.

The above-mentioned factors have an impact on administrative relationships, but on of the main reasons for poor staff relationships results from staffing systems and inadequate liaison between all levels of staff.

CHAPTER V

STAFFING SYSTEMS FOR PROGRAMMES OF RESIDENTIAL FARMER TRAINING*

There are a number of staff levels involved in programmes of residential farmer training, from the policy making and supervisory staff at head office level to the administrative and supporting staff at the centres.

At all levels, it is essential that staff have the required training for their pos are experienced and have satisfactory terms of service resulting in job satisfaction and good morale. All posts from the most senior to the most junior, should have well prepar and realistic job descriptions. These are essential if staff are to have a complete understanding of their responsibilities; and it is equally important that they understan the job descriptions and responsibilities of those working with them.

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* More female staff are being employed at all levels from Principal downward, so that al references to staff refer to both male and female.

Levels of Staff

The levels of staff required will largely depend on the number of training centres and their status. Countries with large programmes will usually have the following staff structure. Countries with smaller programmes will have part of this structure.

Staff Structure

Head Office Level - usually one post.

Regional or Provincial Level - one per region or province

District Level - divided into: a) district posts
b) training centre posts

Training Centre Posts

1) Principal or officer in charge
2) Teaching staff
3) Administrative staff
4) Farm staff

Sub-Division of Training Centre Posts

1) The Principal of a large centre may have a Vice-Principal
2) The teaching staff may be divided into:
    a) residential teaching staff
    b) attached residential staff of other agencies
    c) visiting staff
    d) staff from non-government organizations, voluntary agencies or commercial firms.

Head Office Level

All countries with large programmes have staff at head office level under a variety of names, such as senior extension training officer, senior farmer training officer, senior agricultural officer for extension and farmer training, etc.

While the posts have a supervisory and coordinating role, they can also have a valuable advisory and supporting role. They can represent the interests of both the regional and district level staff in all matters at head office. They can advise and supply the regions and districts with information or materials available at head office, or from other agencies and sources. They can assist with the regular maintenance, supplies of spares and transportation of fragile and expensive visual-aid equipment, etc. They have a major role in liaison with either the regional or district level, and can assist in the coordination and programming of in-service training at all levels. They usually prepare annual reports on residential training, based on reports from regions or centres and may circulate reports from other regions or countries.

It is essential that they have up-to-date and detailed job descriptions, especially in respect of relationships with other staff. The job description is also essential to prevent the overloading of the post, as the officer must be given time and opportunity to travel extensively. If his post is overloaded with work not concerned with farmer training, the incumbent will not be able to fulfil the major roles detailed above. For the success of any training programme, and for the satisfaction of the farmers, it is absolutely essential that the headquarters' posts be filled by well-qualified, well-trained and experienced officers.

Regional or Provincial Level

These posts should have job descriptions which are in many ways a scaled-down version of the headquarters' posts. The major role is to supervise and support the farm institutes and/or farmer training centres in the region. The post is the connecting link between the districts and head office and has liaison responsibilities with other agencies and staff at regional level.

The precise responsibilities will depend on the type and status of the district training centre. In some countries, the centres have only a skeleton staff with little or no transport. In these cases, the regional training officer may be responsible for coordinating and programming the training at all centres. It is possible to operate a transport pool so that when the transport visits centres,it delivers rations from the contractors or a bulk store.

The regional training officer receives reports and returns from the centres in the region on identical pro-formas and, in turn, submits his reports and returns to head office.

District Level

As stated earlier, the usual and most satisfactory system is that at district level all the staff, both those working in the field and those at the training centre, are members of the same district extension service. If this is fully understood, and if the system is to second staff from the field to the centre, then good relationships can be established.

The nature of the extension staff will vary from country to country and from area to area; and in many cases the extension staff will have a "crop husbandry" bias supported by "animal husbandry" staff. However, in an area in which the economy is based mainly on animal products, then the Principal and teaching staff should be drawn from "animal husbandry" staff, with supporting "crop husbandry" staff.

District Posts

In the majority of countries, the district residential training centres come under the control of the DAO. However, there are exceptions to this and regional training officers may have the main responsibility for control of the centres. Whatever the system, it is essential that the division of responsibilities is fully understood and that the job descriptions emphasise these so that overlapping or confusion is prevented. Experienced staff know that the more simple and straightforward the system, the greater the success of the programme.

Principal and Teaching Staff

The first essential is that the Principal and his teaching staff are provided with job descriptions and fully understand their duties and responsibilities; also that they understand each other's responsibilities, and those of the regional training officer and the district agricultural officer.

Whatever the system, the Principal usually has the major voice in the day-to-day control of the centre and its staff. Together, they should accept the challenge that "a training centre is only as good as its staff". The most lavish facilities and comforts will not overcome low quality of staff and unsatisfactory teaching.

Good residential training is based on two main principles:

1) that the Principal and his staff have the ability to send home well-satisfied farmers who feel that their time has been well spent;

2) that the field staff doing the recruiting have confidence in the ability of the centre to send their farmers home well satisfied.

The ideal staff for a training centre consists of well-trained, experienced and dedicated persons who have volunteered to work in a teaching role. Admittedly, it is easier to list these requirements than to satisfy them in practice.

In some countries, working conditions at the centres are less attractive than those in the field and this leads to staff being posted to the centre regardless of their wishes or suitability. This is one of the major problems of staffing. Strictly anonymous voluntary questionnaires during surveys of training centres have shown that from 30 to 50 percent of the staff would transfer to other work if given the opportunity. Some of the reasons given were: preference for extension work in the field, higher costs of living at training centres owing to higher house rents, water and light charges; closer supervision at the centre and longer hours of work. Also the failure to implement the recommendations of seminars and conferences, or delay in doing so.

This lack of enthusiasm to work at training centres has resulted in some instructors seeking every opportunity to transfer to other work and this has led to serious instability of staffing structures.

The question of unsatisfactory terms of service and lack of promotion prospects in centres is common to a number of countries, and suggestions have been made to create a completely separate staffing structure for training centre staff with better terms of service and promotion prospects. As well as a more definite career structure, it is recognised that this might damage the relationship between centre staff and extension staff, but increased incentives at centres could result in obtaining better and more satisfied staff to the benefit of all concerned. Although attempts have been made in the past to pay training staff a "teaching allowance", this was short-lived because it resulted in widespread demands from all levels and types of trainer in government service.

The report of the Training Review Committee of 1971-72 in Kenya made the following proposals:

"Salaries -

297. We recommend that the salary structure for trainers in training institutions should take into account the desirability to attract the man or woman who is not only a first-class practitioner, but also has the additional skills which enable him to pass on his knowledge to others. We would expect thereforethat generally the trainer's salary will be higher than that of the equivalent practitioner. This will also compensate for the fact that in some fields, e.g. agriculture, the responsibilities of the staff of training institutions are a good deal more onerous than those of the practitioner. It will also help to compensate for the fact that, even when a proper career structure is developed for trainers, the ultimate prospects of the officer who finally does go in for a career in training are likely to be more limited than those of the practitioner. As we consider the salary should be established against a rational assessment of the job content and value, we do not wish to make any firm proposal in this respect, but we feel that a differential between the salaries of trainers and practitioners of between 10 to 12½ percent would be of the right order of magnitude.

298. There are two difficulties that arise from our proposal in the paragraph above. The first is that it may be very difficult to tell, in the first instance, whether a first-class practitioner selected for posting as an instructor at a training institute will be a first-class trainer. In some cases, the first-class practitioner may prove completely unsuited for training duties and he should be returned to practical work without any stigma attached. If, however, the officer

concerned has been placed in a higher grade on his posting to the training institute, his reversion to practical duty would cause complications.

The second difficulty is that, in many cases, an officer may be wanted to carry out training duties for a strictly limited period of time. It would be out of the question to promote him to a higher grade, and yet it would be fair to compensate him for carrying out training duties during the period of his attachment to the training institute. To get around these difficulties, officers posted to training institutions as trainers should, during the first six months, recieve a training allowance based on the difference between their salaires and the salaries applicable to the training posts. If, after this initial period of six months, the officer has proved suitable for training duties, he should be confirmed in the appropriate trainer grade."

It seems that in view of the high capital costs of the centres and the ever-increasing recurrent costs, staffing systems should be reviewed if the centres are to be properly operated and contribute to the vital need for agricultural training. Where existing systems are not recruiting and retaining the type of staff required then they should be modified.

It is not encouraging to visit well-built and equipped training centres in an area of greater production potential only to find dissatisfied staff. Many of the complaints made are certainly justified, particularly those that have been the subject of recommendations and resolutions made at district, regional and national levels, but seldom implemented.

The Principal (or Officer in Charge)

At Appendix V can be found a paper given at a seminar describing the responsibilities of a Principal. To be capable of assuming these responsibilities, it is essential that the Principal should be a mature and responsible person with the following qualities:

1) The personality for leadership and the ability to obtain the full support and cooperation of his own staff, and also the staffs of all agencies in the district.

2) Field experience and technical competence, to include a sound knowledge of the farming systems and extension service in the district served by the centre.

In some countries it is the practice to have a Vice-Principal and this is certainly justified in the larger centres and districts. Naturally, some of the best training a Principal can have is to work as a Vice-Principal first.

As indicated in Appendix V, the division of responsibilities should be flexible and depend on individual abilities, etc. While the Principal should have both the knowledge and ability to teach, his major role should be the organisation and supervision of the teaching by his staff. If he is tied to the classroom for most of the day, he is not able to perform the equally important roles of liaison with the district, overall supervision and evaluation of the centre and also control the administration and accounting.

One of the Principal's major roles should be the satisfactory day-to-day utilisation of his staff and this requires good planning ahead. It is both demoralising and wasteful if circumstances arise in which some teaching staff have a very light teaching load and little or no other responsibility.

In some countries, the liaison, supervision and teaching is complicated by the existence of a considerable number of local languages or dialects. Wherever possible, the Principal and his staff should be able to communicate with the local people in their own language. This is less important at the liaison level where usually one common language is in use, but there are frequent examples of the Principal being unable to understand the classroom teaching and also, when he does teach, having to do so through an interpreter.

Teaching Staff - Resident and Visiting

As already noted, teaching staff originate from a number of sources, as follows: residential staff, attached specialist resident staff, regular visiting staff, and staff from local non-governmental agencies and organisations (including commercial firms).

It is important to have a variety of personnel to draw upon so long as it does not lead to under-utilisation of the resident staff.

In recent years, it has been accepted that one of the best methods of teaching is through the informal discussion group. Within certain limits the smaller the group the more effective the teaching and the greater the two-way exchange of ideas. It is important that teaching staff be versatile and flexible so as to be capable of leading a discussion group. If some members of staff are over-specialised, this system cannot be adopted. Situations may arise where one member of staff has a class of 20 to 30 farmers, while others are unoccupied.

Resident staff should attend the lecturers or lessons of visiting specialist staff so as to be able to assist in small group discussions afterwards, with a final winding up and answering of questions by the visiting lecturer.

As mentioned in Appendix V, the Principal should spread his supervisory and administrative responsibilities over the whole staff, so that all concerned have equal responsibilities and the Principal himself is free to supervise and control all aspects of the centre.

The system of a "Duty staff member" for a week is strongly recommended. Appendix V gives suggestions for the organisation and duties of this system.

Duration of Teaching Role

If staff are to be seconded from the field side of extension to the teaching side, it is more satisfactory when carried out on a rotation basis, so long as the staff involved are suitably qualified. In this way, staff know the duration of their secondment, but if it is mutually agreed they should be able to prolong the period. The usual period is for 2-3 years, arranged in such a way that not all the staff change over in the same year.

Training and Teaching Methods

To maintain the required relationship between the field and teaching staff, the system of secondment from the field extension staff is preferred. However, in some countries this is unpopular on the grounds that it does not allow for pre-service training in teaching methods and the training of adults, etc. This situation may be overcome by the following methods:

1) Organisation of staff workshops on a national basis to train trainers from each region, who, in their turn, can train district staff.

2) Organisation of out-of-season teaching workshops on a regional basis for the joint staff of several centres.

3) Teaching practice by the Principal and staff of the centre when accommodation at a centre is available - after a course failure, for example.

4) Teaching practice among staff, possibly with the use of a tape recorder.

It has been established that with sufficient enthusiasm and initiative, the training problem can be overcome.

Non-Teaching Staff

Non-teaching staff should be well trained, efficient and experienced because much of the smooth running of the centre depends on them. The Principal requires a competent clerk who should also be able to type; only large centres justify the employment of a separate stenographer.

If a messenger is employed, he should also have other duties such as assisting with filing, answering the telephone, and assisting with office routine.

Each vehicle should have a driver who also has recognised maintenance duties. Drivers should be compensated for overtime by time off.

Kitchen staff should be allowed time off between courses to compensate for the long hours of work during courses.

Ratios of Teaching Staff to Students

It is difficult to lay down hard and fast rules for staffing ratios owing to the differing circumstances. Recommended ratios have been laid down at various times, but it is really a case of each district deciding upon its own staffing.

Some centres have in recent years tended to be overstaffed so that personnel are under-utilised rather than overworked. This can be caused by a falling off in attendance, seasonal trends in attendance, or a lack of flexibility in the staffing. In some regions of Zambia, where centres tend to be much closer to district headquarters, sometimes even on the same compound, there are one or two basic resident staff members and the rest of the staff join the centre for the required courses before returning to their field duties. This saves considerable capital in staff housing, overcomes much of the lack of cooperation so often experienced and results in much more efficient staff utilisation.

As is pointed out later under "Records and Returns", if accurate yearly records are kept, the seasonal pattern of attendance will be shown and staffing can be related to the seasonal fluctuations. (See Appendix VI).

A residential training centre of 30 beds and 50 hectares of land in 1973 had the following establishment:

Teaching:

The Principal
2 male teaching staff
1 home economics teacher (female)

Administration:

1 secretary/typist for the Principal
1 accounts clerk
1 storekeeper
1 caterer

Farm:

1 farm manager
1 assistant farm manager
1 farm assistant
1 tractor driver
1 carpenter-mason
10 labourers

The previous year, the centre had operated at 46 percent of its planned training capacity. With an average of about 15 students per course and allowing for visiting lecturers, the teaching staff could be seriously under-employed unless alternative duties were organised.

The same observations refer to the administrative staff. If the office staff are over-loaded, the accounts clerk and storekeeper could be combined, and the home economics teacher could oversee the catering, thus saving two posts.

Over-lavish farm staff gives visiting farmers a very bad impression as they cannot be economically justified and the tendency for centres to over-staff should, therefore, be guarded against. Regular evaluations of centres in terms of manpower should be invited from field extension staff to promote a balanced outlook.

Female Teaching Staff

In view of the large number of women engaged in farming, either in their own right or on behalf of their absent husbands, the tendency to increase female staff if a welcome trend. It is additionally important in view of the increased number of women attending training centres. In some countries, the post of Principal is successfully held by women.

In the interests of female staff, care should be taken as to the subjects they are required to teach. It is unrealistic, for example, that a comparatively young woman should be teaching animal husbandry to a class of mature practising farmers. This is even more out of place in areas where animal husbandry is the recognised prerogative of the male members of the family.

Staff Morale

Without contravening government regulations, there is much a Principal can do to improve the job satisfaction of his staff if he so wishes. For example, if not abused, the granting of long weekends off to compensate for overtime thereby allowing staff to visit their homes, can be instituted. Placing staff on the ration strength when their duties prevent them from preparing a satisfactory midday meal, and sympathetic treatment in relation to the supply of wood fuel, milk and vegetables, are other useful measures that may be adopted. Such small considerations can lead to a more satisfied and efficient staff and the government also benefits in the long run.

CHAPTER VI

PLANNING OF COURSE PROGRAMMES AT RESIDENTIAL TRAINING CENTRES

The planning of courses is for two main categories of participant:

1) Staff - for pre-service or in-service training at either regional farm institutes or farmer training centres.

2) Farmers, farmers' wives, local leaders, youth leaders and all sections of the community.

Planning and Organisation of Staff Courses

Staff courses are planned for both agricultural education staff and the staff of all agencies in the district concerned with rural development, both government and non-government.

In many countries this comprehensive approach has been developed to the benefit of the district and to the general satisfaction of all concerned. No two countries, or even regions, have quite the same system, but the essential aim is to utilise the training centre for the maximum possible period during the year.

Farmers cannot attend courses during all seasons of the year; the same applies to agricultural extension staff. However, the work of some agencies is not subject to seasonal demands, and these can utilise the centre at most times of the year, to suit the convenience of the regular programmes.

As already mentioned, systems differ from country to country. In Uganda, some of the larger district farm institutes are combined centres for agriculture, cooperatives and community development. In Lesotho, farmers' courses are held from January to May, and October to December. The period June to September is used for the in-service training of staff of all agencies. In Botswana, the rural training centres run two types of course concurrently each week. One course is planned and operated by the Ministry of Agriculture for either farmers or staff; the other is planned and operated by another ministry or department and, in some cases, by a non-governmental agency. This second stream of courses is largely non-agricultural, although rural training centres' staff assist, if required. They cover a wide range, from courses with an agricultural bias for primary school teachers, to a wide cross section of community interests. The main ministries and departments concerned are medical (family welfare education), community development, general education, Red Cross and youth organizations.

The planning of staff courses does not present the same problems as planning farmers' courses. However, it calls for very close liaison between the various ministries and departments from which the staff are recruited. It is essential that all concerned act in an organised way and provide the agreed courses on the appropriate dates. A fee should be agreed upon between ministries for the cost of feeding staff during the courses. In the event of course cancellations, a pre-arranged cancellation fee should be paid to assist the centre with normal running expenses, excluding rations. Unlike farmers, staff can be directed to attend courses and therefore course attendance should be more satisfactory, so long as all ministries cooperate fully.

Countries that keep attendance graphs can readily identify the best time for non-agricultural courses.

Planning Residential Courses for the Farming Community

Publicity

Now that training centres have been operating in countries for a number of years, the wide publicity drives instituted at their inception have slackened off. Ministries, departments and staff are apt to think that everyone knows about the district training centre. This is not always true, as surveys have indicated. It should not be assumed that all should know about them. Even if they have heard of the centre, they may only have vague and distorted ideas about it.

To the mature farmer or his wife, often very conservative in outlook and much concerned with their own affairs, the idea of leaving their home and farm may be completely new. The thought of travelling some distance to spend a week in another area together with a lot of strangers, can be very disturbing. Consequently, the first essential of good planning is good publicity throughout the district, region and nation.

One may mention some of the media that can be used in this respect. Starting with the centre and working outwards, the centre should have a good notice board at the roadside stating its name and its purpose. Considerable time can be spent "discovering" some centres that do not attend to this simple detail. All transport belonging to the centre should be clearly marked in large letters on the front, back and sides.

The centre should encourage visits by schools, clubs and other local organizations. If funds permit, school children and youth club members should take home to their parents a simple handout giving full details of the centre and its courses.

In addition to miscellaneous visits, the centre should organise open days, field days, machinery demonstrations (in association with the trade), and every type of function that will attract people to the centre. However, it is necessary to make sure that a local trader is present with refreshments on sale, as the centre cannot usually afford this expense.

The dining hall, or reception hall, should always be available free of charge for local functions at which the Principal can say a few words about the centre. Some person should take over responsibility for the hall and agree to leave it in the same condition as it was when taken over.

Centres with electric light can accommodate classes for adult literacy, club meetings and other functions, in the evenings when the classrooms are not in use. In all cases, there are two aims - to serve the community and to publicise the centre. The centre should make sure that it has a stand at the local show, with photographs, exhibits, sample meals, etc., to catch the eye of the public.

About once a quarter, when the farmers are in residence, coverage should be sought from the local information officer in the form of tape recorded interviews, photographs and material for a press write-up. Anything out of the ordinary at the centre - for example, training blind or handicapped farmers - may be written up as a feature article. VIPs visiting the centre should have radio (or television where possible) coverage.

The local information mobile unit should have half a dozen good topical slides of the centre and its participants. These may be shown by the unit around the district during intervals between films, etc. The slides should be changed at regular intervals, especially of groups of farmers. Some countries have excellent films on farmer training. Tanzania in particular has an excellent film in Kiswahili taken at Msinga RTC near Moshi, and the action is so good that it speaks for itself and can be used in any country.

When farmers are returning to their homes, satisfied after a good course, they should be given some handouts or posters for use in their home areas.

In some countries, community development agencies work very closely with agriculture agencies and play a major role in assisting publicity and recruiting. This materially promotes the concept of integrated rural development which is gaining ground rapidly at the present time. In the interests of the people, and of the nation, it is essential that the people should be encouraged to DEMAND to be taught improved agricultural methods, rather than wait to be persuaded to go to the centre that has been built for their use.

It is regrettable that countries in which agriculture is the major industry, having large areas of underdeveloped land of high potential, should have training centres operating at only 50 to 60 percent of their capacity. With increasing population pressure and need for more food and export commodities, agricultural education should be a top priority.

Planning and recruitment for courses would be much easier if training centres had waiting lists of interested groups and individuals. Countries with good publicity make the task of the planners and recruiters very much easier. The best possible publicity for any training centre is to send home farmers who are satisfied and will give good reports to their friends and neighbours.

Programmes of Courses

The planning of successful course programmes for practising adult farmers, their wives and local leaders, is not easy and requires a very detailed and careful approach. Successful planning is the result of a cooperation effort of four groups of people, viz.

1) Representatives of the farmers, wives, etc. to be trained.
2) Representatives of the extension service staff who will be doing the recruiting.
3) Representatives of the training centre staff who will be undertaking the teaching.
4) Representatives of the agencies - governmental and non-governmental - who also wish to make use of the centre.

The groups usually meet as a committee several times a year, depending on the length of the course programmes. The period of the programme plans is important: if the period is too long, the committee members are apt to be posted elsewhere or overlook their responsibilities; on the other hand, if meetings are called too frequently, they may fail to attend. If the programme plan is for a long period, it does not allow for flexibility when changes are required, whereas if a short period is used, the committee should make sure that ample time is allowed for widespread publicity among the farmers. The majority of countries seem to favour programme plans covering from four to six months, but as noted earlier, some have very definite periods dictated by seasonal demands for work on the farm.

The committee should meet about 6 to 8 weeks before the date of the first course. This will allow sufficient time for those concerned to be advised of the details and give recruiting staff the opportunity to convey the details to the farmers.

Some countries keep careful records of the reasons for course failures and cancellations. Bad planning is often a cause of course failure. This may sometimes be traced back to the wrong level of representation on the planning committee.

The DAO or a member of his staff usually represent the extension staff doing the recruiting. In many cases, the "front line" extension workers closest to the farmer are simply told by the agricultural officer for the area: "You are to recruit a course on such a date, on such a subject". This may be the first time the staff member has heard of a course in his area. By the time the information reaches the "recruiter", time may be very short and he is inclined to go back to the people who have been on previous courses to persuade them to go again. This is not satisfactory.

Lack of involvement of the actual "recruiters" at the planning stage has proved to be a major cause of course failures. It may be overcome by the following procedure. As agricultural courses are the major part of any programme, the DAO or his representative should ensure that before the course planning committee meets, the views of both the representatives of the farmers and those of the staff doing the recruiting are known. These are often the same people because junior staff in the divisions usually know the farmers best and understand their needs. It is also essential that the "active" members in extension should have an opportunity to request courses to support their field programmes and that they should be involved in the planning stage.

The DAO should organise a one or two-day seminar (depending on distances) at the training centre for the junior staff from the divisions who will be concerned with the programme. The maximum possible number of field staff should be brought together with the teaching staff to discuss the programme.

The first essential is to make an outline programme for the period to be planned, and this outline should be prepared before the meeting and reproduced for all those attending. It consists of a calendar of dates on which are entered the factors that may influence the planning of courses. These consist of national holidays, dates of local shows, elections or any other functions, such as annual veterinary inoculation campaigns, etc., dates of school holidays for teachers' courses, etc. This outline can form the base for deciding the best dates for the farmers' courses.

The Principals give their views on the dates most suitable for their centres to provide transport to collect and disperse the course participants. The field staff are then encouraged to state their views and requests and to make known the requirements of the farmers they serve. The DAO or DVO, depending on the economy and farming system of the area, will indicate what needs to be "put over" to the farmers or ranchers, from the government point of view. If this procedure is followed, the DAO or his representative can go to the planning committee confident that they really know the views of the farmers and the staff. In view of the administrative pressure on DAOs, DVOs, etc., they should not rely on "hearsay" information but obtain it direct from the staff.

Extension field staff should be shown all aspects of their centre and given every opportunity to offer constructive criticism. Field staff should spend a night in the dormitory accommodation and should be joined by the Principal and his staff. Subsequently, the joint staff should prepare a well-considered report on the facilities of the centre. Many of the older centres are sub-standard and such reports presented to the regional staff will strengthen the case for urgent renovations. This type of joint action and association by staff can do much to foster a feeling of corporate responsibility for the centre.

Too often, gatherings at the training centres finish up by visiting staff going off to the nearest town and the staff of the centre returning to their homes. If the centre is not up to standard for those representing or recruiting farmers, or for those instructing them, it is very difficult for the centre to succeed.

The main purposes of these gatherings are:

1) Preparation of the programme of agricultural courses.
2) The critical evaluation of the centre carried out at each planning seminar and reported on repeatedly until action is taken.

Following such a seminar, the DAO is well prepared to meet the remainder of the planning committee, i.e. the representatives of all agencies wishing to make use of the "off season" periods for their courses, and coordinate with the agricultural courses that have been planned.

At meetings of the planning committee, Principals should be asked to present verbal and written reports on the programmes carried out as a result of the previous committee meeting. These should indicate possible attendance, and actual and percentage attendance at each course. Particular reference should be made to courses that were cancelled or failed in other respects. A critical study of the failures can be more rewarding than the simple acceptance of successes. Countries carrying out this review find that a pattern will emerge, such as poor planning, poor communication with the farmers, lack of, or unreliable transport, or the existence of a centre which is sub-standard either in physical conditions or teaching standards. (See Appendix VII).

The whole procedure may sound very involved, but it is found to work in practice. In some cases, farmers' societies or district organizations may also represent the farmers. However, the basic essentials are:

1) to determine the farmers' needs, directly or through representation;
2) to consult the field staff so that they feel involved in the planning and have an opportunity to present their personal requestions and opinions;
3) to give the joint staff an opportunity to evaluate the training centre and meet together for a free exchange of views and problems;

4) to prepare a well-planned programme as a result of involving all concerned in the recruiting and subsequent follow up;

5) when the final programme is prepared for circulation, each of the courses planned should be given a code number, i.e. 1/74, 2/74, etc. These numbers should also be used in the attendance register at the centre. In this way, a centre accounts for all the courses planned. If this is done and a course fails, the explanation should appear in the register.

CHAPTER VII

RECRUITING OF FARMERS FOR RESIDENTIAL COURSES

"Recruiting"is the procedure adopted to encourage adult practising farmers, their wives, local leaders, etc., to leave their homes and farms to attend short courses at their district training centre.

As noted earlier, the success or failure of this process is usually dependent on adequate publicity about the centre and a well-planned programme of courses. Much also depends on the "recruiters", usually the village-level workers or junior members of the extension staff, who,because of their much larger numbers, are in closer touch with the farmers than the higher levels of staff. This level of staff should feel positively involved in the whole process from the planning to recruitment and, later, the follow up. In this way, they feel more responsibility for the work of the centre.

In some circumstances, recruitment can also be carried out by staff from the training centre and those of other ministries, departments and agencies. These may include staff from cooperatives, community development settlement schemes, local leaders, administrative staff, church organisations, etc. Any combination of these may be involved in recruiting and, as mentioned earlier, should also be consulted at the planning stage.

Junior extension staff and those of other agencies will require clear directions from senior staff at the divisional and district levels as to recruiting policy. Broadly speaking, there are two points of view:

1) By all possible means to obtain sufficient participants to fill the course, regardless of age, sex, education, farming knowledge and ability, etc.; then once they are at the centre divide them into discussion groups with as similar interests as possible.

2) To recognise the difficulties of teaching classes with very wide variations, and narrow them down into much more specialised categories. This will, to a certain extent, be decided by the course planners,and the title and subject of the course, but further selection may be made by the sex of the participants, by specific subjects or the particular aspects of one subject: for example, a course of male farmers on animal husbandry with special reference to clean milk production. However, such a course could still reflect a wide variation in age, education, experience, size of farm, etc.

Attempts have been made in various countries to obtain courses with a more representative cross-section of interests and standards. This is easier with specialised subjects such as cash crops, when all participants might have reached the same stage of development and attend together for instruction on the next stage. This type of recruiting does not put an additional burden on the recruiters.

However, in Uganda at one time, an attempt was made to recruit by either age or educational standards and this was found to be impracticable. It also embarrassed the farmers and hindered the recruitment. A more recent attempt at selection was carried out in Central Province, Kenya, in 1970. The standard used was the "progressiveness of the farmers". They were to be classified into four categories of (1) most progressive; (2) upper-middle progressive; (3) lower-middle progressive; and (4) others. This was an interesting attempt, and details can be found in Discussion Paper No. 133, Institute of Development Studies, University of Nairobi, November 1971. However, in practice, this placed additional severe restrictions on the recruiting staff.

While it is recognised that one of the major difficulties of conducting satisfactory courses for adult farmers is the wide variation between the participants, an equally difficult problem in some countries is to recruit sufficient farmers to fill the courses and so utilise the centre and its staff.

It is not realistic to impose a whole range of conditions on the recruiters who have many other responsibilities. However, if courses are based on an intensified form of extension and are related to programmes in the field, the recruiters ought to be the best judges of who should attend courses together.

Residential centres have been criticised for catering only for the more progressive farmers; to a certain extent this is justified. It is true that in the past some recruiting instructions were specifically aimed at progressive farmers. An example is quoted for Uganda in 1969 by P.A.S. Odongo in Evaluation of the Farmers' Training in Lango District, Makerere University College, 1969. Odongo gives a list of various criteria used in the selection of farmers at Ngetta DFI, Lango District:

"1. The farmer must be interested and willing to attend the DFI.
2. He must be a progressive farmer.
3. He must be thought to be a farmer who will become progressive after attending courses.
4. 'Saturation project' members.*
5. Those who have already attended but are found to need more training.
6. Group farm members.
7. Farmers who go for specific courses."

It is unfortunate that in some circumstances, the idea of catering for mainly the "elite" has arisen, but this has been very largely overcome by in-service training and national seminars. At the same time, if adult farmer training is looked at from the point of view of the national economy, emphasis on progressive farmers has some justification. Even if the capital funds for many of the centres were obtained from external aid, recurrent funds have to be found from local funds. The student fees (where charged) and the farm revenue together produce a very small proportion of the total recurrent costs. However, if the farmers' productivity, income and tax contributions can be increased, then in the long run, the policy of concentrating on the more successful and progressive farmers can be justified from a strictly economic point of view.

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* Those from intensified extension areas.

The success or failure of courses at centres depends on a wide range of factors. Factors essential for success have largely been outlined. Those influencing failures c be divided into two main groups:

1) Factors outside the direct control of the DAO or Principal.
2) Factors wholly (or partly) under the control of the DAO or Principal.

Factors Outside the Direct Control of the DAO or Principal

(a) Lack of sufficient recurrent funds to operate the centre throughout the training year.

In some countries, this has been a major factor in reducing the effectiveness of the centres and has done great harm to their reputation. The Annual Report on Farmer Training Centres in the Republic of Kenya for 1971 states: "The year under review shows quite a drop in farmers' course attendance. The number of courses cancelled is quite alarming. Many centres were closed for as long as six months in the year." Various reasons were given for closing the centres, the most important of which was lack of fund

In such cases, some of the fault could be at district level owing to poor allocat of the funds available. In Kenya this problem has now been overcome by identifying fun for training and allocating them directly to the training centres.

If, for any reason, recurrent funds are not available, it is much better policy t close the centre and put it on to a care and maintenance basis. In this way, the staff can be re-deployed to district work, follow up of ex-students, evaluations, etc. Howeve if the centre does have to close through lack of funds, then the reason should be made public at all levels, both within the ministry and at the political level.

If the recurrent funds are not available at national level and the centres have been established with capital from external aid, then the donors should be advised. Th have been cases of "rescue operations" and the provision of recurrent funds by the donor agency to keep the centres operating.

(b) Lack of capital funds to renovate sub-standard centres or to replace stores or obsolete and worn-out equipment.

In some countries, the original centres were built with local materials and were quite functional and filled a local demand. As progress was made in the district, it became more difficult to obtain government funds to replace old "temporary" buildings. This has happened in several countries and the only answer is to close the centre and launch an appeal for capital to build a permanent and up-to-date centre.

In certain of the older centres, it is not only the buildings that are the limiti factor, but worn out and broken equipment, water pumps, light plants, kitchen stoves and utensils. At least once a year, the advisory committee or similar body should carry ou a critical evaluation and report to the highest level. It is unfair to ask extension staff to recruit farmers for sub-standard conditions.

(c) Lack of adequate transport

In almost every country, the accepted system is to transport farmers to and from the centre from agreed collecting points near their homes. District transport may be u to take them to public buses or trains where these normally serve the centre. To recruit farmers successfully, adequate and suitable transport must be at the collecting points o the days and at the times agreed.

Failure to provide adequate transport for students is a very common cause of course failure. Either the transport fails to arrive at the centre from the "pool", or fails to arrive at the collecting point, for a variety of reasons which can be broadly classifed as:

1) organisational failures arising from confusion as to dates, times, or the lack of a responsible person with the transport. A staff member from the centre should accompany the vehicle and in the event of a breakdown or any mishap, the driver can care for the vehicle and the staff member use his initiative as to the best action to be taken;

2) mechanical failures either on the day, or transport long overdue in government repair workshops. This reason is frequently found in annual reports;

3) unsuitable transport for the prevailing road and weather conditions, resulting in failure to arrive as planned;

4) unsuitable types of transport for personnel. Open lorries with no protection from sun, dust or rain can cause course failures as the farmers often return home when they see the vehicle, or complain to neighbours on their return.

Many of these failures can be overcome by close attention to detail. Confusion over dates and times and places can be overcome by closer liaison and by agreement at planning seminars.

If there is a "closed season" for recruiting, the transport should go to workshops for inspection and major maintenance. The drivers should also have regular maintenance tasks and a member of the staff should be competent to inspect the vehicles at regular intervals and check and sign the log books. In remote areas, vehicles should carry a good selection of spares, and the driver should be competent and equipped to carry out roadside repairs.

For the comfort of the passengers, especially women with children, and to comply with transport regulations, the vehicle should be a suitable type of bus and the capacity should be related to the capacity of the centre. Cases have been known of course attendance being decided by the capacity of the bus, and not by the number of beds at the centre. Two mini-buses are sometimes more useful than one larger vehicle as they allow for greater flexibility and double the chances of having at least one vehicle on the road.

In areas of high rainfall and poor road conditions, either four-wheel drive vehicles or light mini-bus type should be used.

It is essential that all causes of course failure be recorded and reported. So many reports are seen stating "course cancelled or course failed" with no details or explanation for failure. In Zambia, where excellent records of failures are kept, repeated reports of vehicle failures result in new vehicles.

(d) Factors beyond control of the staff

The following uncontrollable factors can influence or prevent the recruiting of courses: drought, floods, famine, diseases of crops or stock, or, of course, sickness among the farmer's family. In some cases, close liaison with local staff can anticipate these events developing and changes can be made in the programme of courses.

Sudden visits to the recruiting area of important personalities, sudden elections or functions that clash with dates of courses. Close liaison, however, may enable a change of schedule to be made.

(e) Course fees

For attendance at some centres, governments or boards of management stipulate that fees be paid which the people most in need of training may not be able to afford. However, the majority of countries do not charge attendance fees.

(f) Failure of essential services at the centre

Cases arise when centres cannot accept farmers owing to failures in supplies of water, electricity or fuel, or kitchen stores. Intelligent anticipation or regular inspection can overcome some of these difficulties.

(g) Poor communication

A telephone is an essential for swift and cheap liaison between the recruiters and the centre staff. In some areas, the initial capital cost of the telephone installation may be high, but this is offset by a big saving in transport and publicity for the centre.

Factors wholly (or partly) under the Control of the DAO or Principal

(a) Poor teaching and an unsympathetic attitude by the staff to the farmers, resulting in a bad reputation in the district.

(b) Poor planning of programmes by unrepresentative committees, or lack of a committee, or courses imposed on the recruiters and farmers by the Principal and his staff.

(c) Poor publicity for the centre.

(d) Lack of adequate job descriptions, resulting in lack of understanding between staff at the centre and those in the field.

(e) Lack of liaison between the field extension staff and the centre staff.

Other Aspects of Recruiting

Group Recruiting

Discussion at national seminars and workshops has sometimes revealed a reluctance by field staff to carry out recruiting. Some of the reasons are obvious and have already been discussed. The attitude of the recruiters should be established and if this is unsatisfactory, rapid remedies sought.

Recruiting is most successful when staff are in the position to offer well-planned free courses as an incentive. If no fees are charged, then group recruiting from clubs, associations, village groups, etc., can be undertaken. These group courses have many advantages:

1) The people are in much the same circumstances and have similar problems.
2) They can appoint their own course leader and can be encouraged to form groups on a "waiting list" basis.
3) Contact is easier for both the initial recruiting and the subsequent follow up, which can be done on a meeting basis rather than an individual basis.
4) Transport costs are lower and can be much more on a "door-to-door" basis with the participants assembling as a group rather than as scattered individuals along the roadsides.

5) There is less chance of confusion over pick-up points, which is a common cause of course failure.

6) Sudden drop-outs for personal reasons can be replaced more easily and numbers kept up.

7) The fact that they have all agreed to attend a course together, denotes a certain unity, and they will therefore settle down more readily at the centre.

It is a useful idea for the extension agent to accompany farmers to the course to help in discussions and relate what is taught to local conditions and problems, and to facilitate effective follow up.

Over-Recruiting

With the many aspects of recruiting already mentioned, it is obvious that a training centre will seldom operate at 100 percent of its bed capacity. A good average would be about 75 to 80 percent. Therefore, in recruiting a course, it is safe to over-recruit, for example, asking for 60 instead of 50.

CHAPTER VIII

RELATIONSHIP BETWEEN STAFF AND FARMERS

The majority of courses start in effect on Sunday and finish on Friday or Saturday excepting those operated by church organisations. The farming community should be consulted on the most suitable and convenient day to be collected. However, this should be applied with reason, as cases are known of courses collected on a Monday and dispersed on a Friday, leaving three days for instruction, often including a one-day tour to field projects during the three days. This leaves about two and a half days for actual instruction, a very unbalanced ratio of days of instruction to transport costs, which is the most expensive item in calculating the cost per student day.

From the organisational point of view there is much to be said for Sunday collection. Assembly on a Sunday and dispersal on a Saturday gives five full days of instruction. The day for assembling the course should not be imposed on the community regardless of their wishes, or it may become an additional reason for non-attendance. However, if too much free expression of views is allowed, the situation may arise of some wanting assembly on Sunday and others on Monday.

Staff Attitudes to Sunday Collection

Naturally, the majority of staff like to be off duty on a Sunday. It is easy to compensate drivers for Sunday work with a day off during the course. All too often, transport is sent out to collect farmers without a member of the teaching staff; but if a staff member does go out on a Sunday with the driver, which is highly desirable, then the staff member should be compensated with time off. If he goes to meet farmers on a Sunday with feelings of resentment, he is not likely to greet them in the right frame of mind.

The first contact farmers have with the centre is the arrival of the transport to collect them. If this is late and the driver in no frame of mind for pleasant greetings, but herds the farmers into an open lorry with inadequate seating for a rough ride, often in adverse weather conditions, then very bad first impressions are created. Cases have been known of farmers, with their best suits on, arriving in an open lorry having travelled through both rain and dust, and being asked on arrival to line up and pay their course fees. This sort of treatment results in a group of justifiably angry and resentful people in no frame of mind to be taught anything, and precious hours can be wasted in acrimonious argument.

Good impressions during the first contacts with farmers are vitally important. The farmers will only be at the centre for up to five days, and no opportunity should be wasted to create a good atmosphere and friendly relationships.

The ideals to be aimed at are the following: farmers should be assembled at the collecting points by a member of the field extension staff who, in the event of the centre transport being delayed, can reassure them. On arrival of the training centre bus, the farmers are greeted by the staff member from the centre and introduced by their extension staff member. The two members of staff have the opportunity to discuss matters related to the course. On the journey, perhaps picking up other farmers on the way, the staff members should take the opportunity to mingle with the farmers and start to get to know them and assess their requirements. They should not travel in splendid isolation. Points of interest should be pointed out to the farmers and questions answered about the centre and the course. In this way a friendly atmosphere can be established before arrival.

On arrival, regardless of the time of day or night, the first priority after greetings by the duty staff member, should be an opportunity to wash, followed by a first-class hot meal. During the meal, the conducting officer can report to the Principal or Vice-Principal on his general impressions on the farmers' attitudes and requirements. Following the meal, the farmers are then settled into their accommodation, having been asked during the bus ride to decide on the allocation of cubicles.

Depending on the time of arrival and the wishes of the farmers, they can either have an informal meeting with the Principal or Vice-Principal, or a film show, or both, if time permits. This informal meeting can be of great value to the staff of the centre as it gives them an opportunity to discover requirements, answer questions and formulate their plans for Monday.

If fees have to be collected, this should be done during the first administrative period on Monday morning. It should be pointed out that the fees only represent a fraction of the total cost and are, in fact, much the same as would be spent at home.

If the course is for women, a female staff member should go with the driver, and if babies are expected with their mothers, the necessary facilities should be made available at the centre prior to their arrival.

During the first formal session on the Monday, administrative matters should be dealt with: times of "gongs" or bells, times of meals, etc. If there is no course leader, then they should be asked to agree on one by Monday evening when they know each other better. The course leader should then be the recognised channel of communication between the course and the duty member of staff over all matters related to their comfort during the course.

The only rules are to be punctual for meals, to turn off water taps and lights, and to leave the centre and its equipment in the same condition as they found it. Particulars of fire alarms, medical facilities, etc. should be explained.

Following the administrative matters, the Principal should introduce the members of his staff and then address the farmers on the aims and objectives of the course, and try to determine the particular requirements of the group.

They should be informed that each period of instruction will be followed by a question and discussion period, and that their points of view will be most welcome. The staff should be careful to speak to the farmers at a level that is easily and readily understood whatever the language of instruction. At the National Seminar on Farmer Training in Kenya in April 1972, the Minister for Agriculture made the following point: "The act of effective communication lies in equality. If a farmer gets the impression that the instructor is so learned and is endowed with almost supernatural powers, he will shrug his shoulders and say 'Perhaps you can do it because you are so much better equipped than I am'". (Details of instruction will be found in Chapter IX).

Recreation

Apart from staff and youth courses, the majority of the course participants are not of an age to be interested in playing football. However, volley ball is always popular and requires very little space or expense; the same applies to netball for the women.

Radio, television, cinema shows, draughts, etc. and traditional games are always popular; some centres organize debates and discussions, but with only five or six nights, there can be a risk of over-organising and farmers are usually early to bed.

Women on courses very much appreciate their freedom from household duties and welcome the opportunity to have informal discussions with other women.

On the last day of the course, the Principal should invite the DAO to come and address the students and hear their points of view, and to obtain valuable "feed-back" from them. If attendance certificates are given, these should be presented by the DAO. In some countries, the DAO likes to talk to the farmers informally, without the staff of the centre being present, so that he can obtain frank opinions on the course. Whatever system is used, the DAO should encourage frank and free opinions and feed-back from the farmers on both the course as well as the district policy.

The DAO should answer questions and take the opportunity to outline district policy. He should also ask the farmers to tell their friends, wives or husbands, about their centre, its courses and opportunities. Many DAOs do not attend the final sessions and this is frequently regretted. Some may be prevented by long distances or other engagements. However, a DAO who knows his job and its responsibilities, should look upon this as a priority engagement. Apart from the valuable contacts and reactions from farmers, it does much for the morale of the staff of the centre who feel out of everyday district affairs if the DAO does not visit them more than once or twice a year.

If there is any serious and justified criticism of the centre's facilities, the DAO should request the course leader to present it in writing. While it is true that continuous reports by staff can be disregarded by higher authority, genuine and justifiable complaints from farmers often produce the required results.

Every effort should be made to send well-satisfied farmers to their homes feeling that time has been well spent and, if fees are paid, that they have had good value for their money.

Take-Home Material

Centres can often assist in the bulking up of improved or introduced vegetative material such as cassava or fodder crops recommended by research, and farmers can take this home with them. Some centres sell seeds, veterinary supplies, insecticides, fertilisers, etc., to departing farmers and, in remote areas, this can be very much appreciated. However, the following points should be borne in mind:

1) If there are local and established sources of supply, competition with them is not recommended; cases have arisen of centres being prosecuted for trading without a licence when attempting to compete with local traders or cooperatives. It is appropriate to have a display room of trade products available and the accurate current retail prices to be paid. Enterprising commercial firms will often provide display materials, posters, etc., for the display room or classroom.

2) In the absence of a local source of supply, centre vehicles transporting students or collecting rations can also cater for local requirements; however, it is not desirable to try to buy popularity by selling at subsidised prices. The long-term objectives should be to encourage the establishment of a local cooperative to satisfy the demand. Consulting the local cooperative officer and working out a fair price, including transport, handling, storage costs and profit, and selling at that price is the right policy. In this way, a cooperative can take over without a drastic price rise or friction with the farmers and the training centre.

CHAPTER IX

COURSES OF INSTRUCTION AT TRAINING CENTRES

In the early days of residential farmer training, there was a rather limited and departmental approach to training. It tended to be looked at more from the good of the particular department than that of the district. Uganda started the trend of a wider district approach when it began building district farm institutes in 1960. This approach made training facilities available not only for agriculture but also for cooperative and community development.

This trend has spread and can be recognised by adopting the name "rural training centres" or "district development centres". Even when the name "farmer training centre" has been retained, it is now recognised that they have a much wider multi-purpose role than in the past.

In earlier days, litte thought was given to the training of women (with the exception of Lesotho and Botswana), or youth. However, of recent years courses for women and youth have been significantly increased and training centres have made valuable contributions to these programmes.

The average district training centre of today has a much broader approach and well-organised centres should be able to offer training for all aspects of district development. The types of course offered can be divided into two main groups:

1) Courses for the staff of all the agencies working on rural development, including induction, up-grading and in-service courses.

2) Non-staff courses to include:

   a) courses for practising farmers, male and female;

   b) courses for all types of local leader, including administrative staff, school teachers, church workers, etc.

   c) courses for farmers' wives and daughters, either for women only or as mixed courses of men and women

   d) special courses for such people as blind and otherwise handicapped farmers.

Objectives of Courses

The main objectives are to offer courses for the improvement of existing land-use methods and skills; to stimulate the adoption of new attitudes and skills for developing the full potential of all available land and natural resources; and to improve social and economic standards in rural areas.

Courses for Staff

Planning of courses for the staff of all interested agencies should be decided by an annual planning committee. Each agency should be given advance notice of the meeting and should present their proposed training programmes for the year. The combined plans should be studied and priorities decided at the meeting.

The staff of some agencies, such as agricultural and veterinary services and teachers can only be withdrawn from field duties at certain seasons of the year, while others are not subject to seasons, school terms or other factors. With this information to hand, the committee can synthesise the various programmes into one staff training programme for the district.

Having prepared the programmes to their mutual satisfaction, it is essential to adhere to it strictly. All staff courses should be "captive" courses of previously known numbers. With this knowledge, the training centre will be advised of the numbers well in advance. In the event of a planned course not filling the centre, the DAO and Principal can then organise a further course to occupy the vacant accommodation, if advised in time.

The pre-arranged and planned staff courses should be considered as firm fixtures by all concerned. Any unavoidable changes or cancellations should be registered as soon as possible to allow for alternative courses. All too often, course registers and returns show vacant accommodation due to the failure of "captive" staff courses. Courses that fail to arrive on the date stated cause disorganisation and extra expense. The agency concerned should be charged a cancellation fee and not be invited to participate again, unless the reason for the cancellation was completely beyond its control.

Types of Staff Course

Of recent years, it has been recognized that the farming community can best be served by improving the standard of staff and keeping them up to date. It has also been realised that the staff in close touch with farmers are those with the least training and lowest standards. The junior staff are more numerous and are able to contact more of the community than the senior staff who are fewer and often heavily involved in administrative matters.

Table 2

National Training Centres for Principals and Teaching Staff of Farmer Training Centres

1970 - 1973

Analysis of Participants Attending

Countries	Date held	Training Centre Staff	Extension Staff	Farmers	Speakers and observers	Total
Tanzania	May 1970	26	16	-	21	63
Malawi	December 1970	22	37	-	30	89
Swaziland	May 1971	12	32	-	18	62
Zambia	January 1972	34	25	-	48	107
Kenya	April 1972	47	31	-	38	116
Lesotho	August 1972	14	53	-	33	100
Ethiopia	September 1972	4	19	-	32	55
Malawi	December 1972	31	41	-	45	117
Botswana	September 1973	5	46	11	62	124
	Totals	195	300	11	327	833

Table 3

Summary of Subjects Covered at National Training Centres 1970 – 73
Periods of Training, Discussion and Practice (Periods of one hour)

Subjects	Tanzania	Malawi	Swazi-land	Zambia	Kenya	Lesotho	Ethiopia	Malawi	Botswana	Total beds
Working in Groups – Resulting reports Discussions and practice	7	12	13	16	5	6	–	31	18	108
Participants visits to training centres and research stations	18	6	13	5	9	4	17	8	6	86
Farmer Training Centres. Roles, responsibilities – Integration and liaison with extension services	7	10	8	10	8	14	6	4	13	80
Pre-service training requirements at all levels	–	–	–	–	–	–	35	–	–	35
Principles of learning – Teaching methods Attitudes and skills	–	5	4	–	4	5	–	10	–	28
Youth Training of Staff, leaders and club officials	2	3	4	3	4	5	–	1	2	24
Audiovisual aids-preparation-training-practice – maintenance	8	2	3	–	3	2	–	–	2	20
Health Education & Nutrition	1	5	3	4	–	3	–	3	1	20
Women – Roles and Training needs	3	4	2	2	2	3	–	–	4	20
Administration – Finance – Records-reports-Storekeeping etc.	8	2	4	–	3	2	–	–	–	19
Staff Training – Policy for pre-service and in-service training	2	6	1	1	2	2	–	1	3	18
Planning and recruiting of courses and after-course follow-up	8	2	1	1	1	3	–	2	–	18
Demonstrations – Planning – Presentation-practice – evaluation	4	2	2	4	–	4	–	–	–	16
Training Farms – Policy and management	5	–	5	2	–	2	–	–	–	14
Agriculture in schools	–	–	1	4	–	2	–	3	3	13
Cooperatives – Marketing and Credit	2	–	4	3	–	2	–	–	2	13
Church and voluntary organisations-liaison and co-operation	2	2	–	–	–	2	–	1	–	7
Research findings and training	2	–	–	1	–	–	–	–	1	4
Adult literacy	1	–	1	–	–	–	–	–	2	4
	80	61	69	56	41	61	58	64	57	547
	(longer working day)				(one week only)					

Induction Courses

If there are staff vacancies, one or two-week induction courses are held at the training centre. Nominations are accepted from field staff and other sources, usually at an agreed educational level. These courses are best held at a regional centre or at one centre in a province. This makes it less personal and also each district may require only three or four new staff members. The usual practice is to accept more entrants for the course than the number of staff required, thus making it competitive. By their contributions during the course, character evaluation and a final test, a high standard of staff can be recruited.

Up-Grading Courses

When terms of service or staff shortages permit, up-grading courses are held for staff. In this way, some countries are managing to overcome the old system of promotion on seniority and length of service alone. While these cannot be completely disregarded, at the same time younger staff with drive and initiative should not be overlooked, but encouraged. If older and more senior staff attend up-grading courses with younger staff, they will recognise that they have either got to keep up with the times or be by-passed by more capable younger staff.

In-Service Courses

With the contemporary challenge for ever-increasing production for an increasing population, together with rising costs of production and lower prices, staff should accept the need for continual professional improvement. In-service subject-matter refresher courses should be organized. At the same time, professional improvement should be recognised and rewarded. Unless this is done, the morale of extension staff is apt to be low for lack of reasonable career prospects.

In some countries, card index records are kept of the in-service attendance of staff and these can be taken into account in evaluating staff for promotion. Apart from keeping staff up to date on all aspects of subject matter, the training centres should also be used for workshops on methodology, visual aids, communication, demonstration techniques, etc. Naturally, the same principles apply to female staff but, as they are usually fewer in number, their courses may have to be on a regional or national basis.

The length of courses for field extension staff is usually determined by the time they can be spared from their normal duties. A high standard of well-trained and up-to-date staff can have an important influence on large sections of the farming community. For this reason, staff courses should always have a high priority.

The Institute of Development Studies of the University of Nairobi carried out a survey of extension methods in the Western Province of Kenya and reported as follows on in-service training at training centres. An extract from a discussion paper by D.K. Leonard states:

> "Our data seems to show that retraining done at a farmer training centre by senior staff provides the extension worker with greater understanding and persuasiveness in his knowledge than does the local meeting. The advantage of the FTC is that it offers a venue free from distractions and an occasion at which all concerned are aware that the information transmitted is to be taken seriously. Although the larger number of FTC located rebriefings are accompanied by demonstrations, this seems not to be critical. The important thing is to see the point practically when one is first learning it. If this is done, later sessions can serve to refresh that experience without repeating it. On average, a rebriefing conducted by senior staff at an FTC is associated with an increase of 19 percent in information and 18 percent in persuasiveness."

Courses for Farmers; Leaders

The operation of successful courses for farmers presents more problems than those for staff. Staff can more easily be organised and have comparable levels of education and experience. However, a course of farmers may contain a wide variation in age, experience, education, land use methods, etc. The course is a new experience to them.

If group recruiting is carried out from quite a small area, say a village or sub-location, and if the farmers have elected their own leader, some of the handicaps are overcome. Such a group is more likely to have similar interests and conditions, and perhaps a joint desire to be instructed in some particular skill or method. They may still have wide variations in age, experience and education, but at least they have some requirements in common.

Determination of Course Content

Farmers are usually recruited to a course with a specific title. However, the title can be very general, such as "Animal Husbandry", or "General Agriculture", and it is therefore important to establish before the course starts aspects of the subject in which they are most interested.

At the National Seminar in Malawi on the Training of Farming Families in Rural Areas, in December 1970, it was decided that:

> "We should endeavour to suit each course to the interests of those who actually turn up. Could we not spend an hour or two at the start of each course discussing and deciding with farmers what topics should be concerned in the course they are starting upon."

This "get together" period with farmers should be attended by all teaching staff and free discussion should be encouraged. This is a sound practice because with only five days of instruction, there is no time available for false starts. If the course has divided interests, it should be formed into small discussion groups depending on the number of supervisors available. Within reason, the smaller the group, the greater the impact will be on the farmers.

Unfortunately, many centres seem to have a fixed idea that the farmers should form one large class. This leads to frustrations and a lack of satisfaction by the farmers and also a poor utilisation of teaching staff. One of the Principal's responsibilities is to see that his staff are multi-purpose and supervise discussion groups on almost any subject. They have all been granted a full certificate or diploma course in both animal and crop husbandry and should be able to give instruction in all but the most specialised subjects.

Organisation of Course Content

In the past, courses tended to be too general and it was often assumed that farmers knew much more than they in fact did. In East Africa, an attempt was made to reduce all lectures on major subjects to "standard recommendations". These usually consisted of ten to twelve major basic points, agreed by all concerned and used both by extension staff and by teaching staff at centres. This was a step in the right direction and the system has been improved in Botswana by the introduction of a system known as single concept lessons. This arose from the farmers expressing the wish to have a specific subject treated in much more detail.

For example, instead of a lesson on internal parasites of stock, they have adopted five separate individual lessons on worms in cattle, worms in sheep and goats, worms in pigs, worms in poultry, and worms in horses and donkeys. These lessons are supported by slides, specimens, charts, pictures and loop films. They and their supporting materials are kept together as a "package" lesson and are catalogued and indexed. Some 150 single concept lessons have been prepared and indexed, and this assists field staff in identifying the concepts they consider should be included in the course. It also allows for greater flexibility; if a course requests a new topic at short notice, the detailed lesson is already prepared and ready for use.

Single concept lessons were also developed in Malawi (see pages 155/6 in "Guide to Extension Training") - maize practices, for example, being divided into about eight lesson notes with five or six positively and concisely expressed steps in each covering the subject from seed to storage. These were also used as the basis for audio-visual aid production, radio, etc. to ensure that everyone spoke with the same voice. They were contained in a publication known as a "Method Demonstration Manual".

Length of Courses

Over the years, the length of courses has been decided by trial and error, and by the preferences of the farmers. Certain climatic conditions result in longer periods of comparative inactivity on the farm. However, few farmers or their wives wish to be away from home responsibilities for more than a week. The general trend in the length of courses is illustrated by the following figures taken from the 1971 Annual Report on Farmers' Training Centres in Kenya.

Table 4

Length of Courses

Year	Two-Week Courses	One-Week Courses	Total
	(10 - 14 days)	(5 - 7 days)	
1967	117	701	818
1968	114	722	836
1969	102	751	853
1970	90	850	940
1971	85	685	770

The fall-off in courses in 1971 resulted from an increase in course fees. These can also be a limiting factor in deciding the length of course. Planning committees should keep an open mind on the length of courses and the farmers should be consulted on this point from time to time.

Transport is the biggest single cost at a training course. If the centre is beneficially occupied for two weeks by the same course, then the transport costs are halved and contact with the farmers doubled.

Another aspect is the attitude of the staff. A Principal once asked about two-week courses observed: "What! have the centre occupied over the weekend. The staff would not like that."

Courses for Women

To operate successful courses for women, the centre should have appropriate facilities. Many centres can now accommodate both men and women at the same time, which allows for mixed courses. Other centres can only operate alternate courses for either men or women. Whatever the system, it is now widely recognised that courses for women are an essential part of the rural development training programme.

Recruitment of additional women to the staff of training centres has also had a great influence on the number of women attending courses. Numbers vary considerably from country to country depending on economic and social circumstances. In most countries, the average attendance is between 30 to 40 percent of the capacity. However, in countries where the male population finds employment outside the district or country, the number of women at courses can exceed those of the men. Lesotho is an example of these circumstances. The 1973 Annual Report on Farmer Training Centres gives the following figures:

Total courses: 82; Total men: 655; Total women: 1,815.

Surveys in other countries have shown that up to 20 percent of the heads of families are women and this endorses the importance of planning for women's courses. Unfortunately, in areas where a large percentage of the men are absent, it is often difficult for the wives, or female relatives left in charge, to disengage themselves from farm and home responsibilities. In these circumstances, an increase of women extension staff is required, or, as in Lesotho and Malawi, a large number of day centres where the women can attend for an hour or two without being too far from home.

Mixed or Separate Courses

Some of the original training centres were built to cater for farmers and their wives attending courses together. This is seldom practicable owing to home and farm responsibilities. However, it is quite common to have mixed courses of unrelated men and women, the women attending with the status of head of family, or farmers in their own right.

At other centres, separate courses are held for women; these usually have a home economics bias and are very popular. They are often the first occasion that a woman has been relieved of her household responsibilities and has time for relaxation and recreation.

Children at Courses

There are a variety of points of view on the question of women attending courses with their children. Some centres do not allow children, but hold their women's courses during school holidays when older children are at home and can attend to the smaller ones. However, women with breast-fed babies have to take them to courses. In some cases, an older child also attends to care for the baby while the mother is in the classroom. Small children can be a disturbing influence at courses, but it is better to have the mothers under these conditions than not at all. When small children attend courses, the appropriate facilities (cots, etc.) must of course be provided.

Pre-Service Training of Female Staff

In some countries, the farm institutes or larger training centres are used for the pre-service training of female staff. This has the advantage of training the women in a rural background and in the conditions under which they will work when trained. It also helps to reduce the wastage that can arise when women are trained in an urban environment and then posted to rural areas.

Courses for Youth

The majority of farmer training programmes have the general policy of offering training to the whole farm family, i.e. the farmer, his wife and his family. However, the training of youth presents many more problems than the training of adults. Adults are being trained in relation to an established background and the training is aimed at improving existing circumstances. Youth to be trained are usually very numerous and do not have the same sense of security as their parents.

In most countries, training centres give priority to the established adult farmers and their wives, youth training being carried out only for voluntary leaders and youth club officials. The exception is when special training centres or farm schools are established for young trainees for settlement schemes.

In some countries - Lesotho is a good example - a one-year course for young trainees both male and female is provided at farmer training centres. These young people live in separate hostels and do most of the farm work. They use the same classrooms and dining hall as the farmers and the timetables and meal times are coordinated to suit both groups. This is a very sound system as the training facilities are used to better advantage than if used for farmers' courses only. The only extra buildings required are two hostels, and these are often built as self-help projects.

The average training centre makes its best contribution to youth training by holding courses for youth club officials and voluntary leaders. In this way, they can offer strong support to the youth movements. This is especially important with unpaid voluntary club leaders who much appreciate the courses.

It is not recommended that very large numbers of youth club members attend courses. Cases have been known where three times the normal capacity have been accommodated, but very little useful instruction is possible under these circumstances.

Course Timetables

A course timetable is usually prepared by the Principal and his staff to cover the subject of the course. Depending on the subject, the timetable may be prepared before the course assembles, or after a discussion with the course participants to determine their needs.

At one time, many centres had set timetables to cover a variety of subjects and these were often used without reference to the requirements of any one course. It is good practice to have course outlines on a wide variety of subjects, but these should be very flexible to meet the needs of individual courses. At many centres the trend is toward courses on one specific subject, which simplifies the preparation of the timetable.

If courses are operated on a discussion basis with the participants breaking up into small groups, different timetables may be necessary. From the point of view of the Principal, the timetable has two aspects:

1) to advise the participants and staff of the programme of work for the course;
2) to plan for the proper utilisation of his staff during the period of the course.

Basic Information on Timetables

Timetables are usually prepared for internal use at the centre and may only be in use for a week, but it is sound practice to make sure that all timetables show the following information and that one copy is kept in a timetable file. The file copies can often be of use for the guidance of staff on subsequent follow-up visits to a particular course.

Essential Information

1) The name of the training centre
2) The title of the course and the dates
3) The type of participant and the area from which they were recruited

4) The timetable should have the same course number as the student register, for ease of cross reference

5) Each period should show the staff member in charge

6) The method of instruction should be indicated, for example, talk, followed by slide show and demonstration.

These points are simple basic and easy information to have on every timetable. Such a timetable is of much more value at a later date as it has positive identification to a particular course and the Principal is able to see how his own and visiting staff are to be utilised, and make arrangements for any surplus staff.

Hours of Work

When conducting courses for farmers and farmers' wives, the hours of work should be [illegible] keeping with the customs of the farmers. Farmers are early risers and do not mind starting early in the morning, in the cool of the day. All too often, the hours of work on the timetable reflect government hours of work of the staff, or are made to fit in with the established meal times. Both staff hours and meal times should be flexible so as to suit the requirements of the farmers and weather conditions. Farmers may be seen sitting around in the early morning waiting for "government hours" to start. Farm walks, demonstrations and practical sessions should be carried out in the cool of the morning or evening.

Theme of a Timetable

If possible, each day of the timetable should follow a definite related sequence or theme. This is easier to plan with one-subject courses, but even "general agricultural" courses should be programmed to follow a definite sequence of related subjects. Programmes are found with no relationship between the periods for one day. The following, for example, is an extract from a general course for farmers:

"Monday: Farm walk - soils - human nutrition - rabbits - bees"

Subsequent days had a similar confused jumble of unrelated subjects.

Tours or Visits

If possible, tours or visits should take place in the middle of the course so as to make a change. A well-planned tour can be one of the most important days of the course. It should not be looked upon merely as an "outing", but be planned to reinforce the points made in classroom teaching. Visits are of particular importance in convincing farmers of the changing of attitudes to such controversial subjects as land reform, the enclosure of land, stock limitation, artificial insemination, etc. Time should be allowed for the visiting farmers to question the local people on their views. These will carry much greater weight than repeated assertions by the staff.

Teaching staff should be encouraged to make suggestions or changes in the timetables in the light of their teaching experience.

Teaching Methods

With adult practising farmers and their wives, the best method of instruction is by realistic and convincing demonstrations. (This is covered in Chapter XII).

The Use of Audio-Visual Aids in Classroom Teaching

It should be remembered that the average length of course at a training centre is five days and this may be reduced to four days by a one-day tour or visit during the course. During this limited period of instruction, it is neither possible nor desirable to use the whole range of audio-visual aids.

In every country, audio-visual aid centres can assist Principals and their staff in selecting the aids best suited to the circumstances and to participants attending the courses. There is also a wide range of literature and publications on this subject and these are readily available in most countries.

Accordingly, it is not proposed to cover this subject in great depth here, but only to make some suggestions. The range of aids available can be divided into:

1. Real objects
2. Projected visual aids
3. Non-projected visual aids
4. Radio and television

Real Objects: Naturally, when dealing with practical farmers, the use of real objects has greater impact than any artificial aids. Real objects should be used whenever possible and a selection of these should always be readily available.

Projected Visual Aids: For the successful use of projected aids, a supply of electric power is of course essential and the lack of power can often rule out the use of projected aids. However, with the small portable generators and battery-powered equipment being more easily available, this is becoming a less limiting factor.

Non-Projected Visual Aids: A wide range of material is available to all centres and in a number of countries centres possess facilities for the preparation of their own aids.

1. Projected Aids (for centres with electric power)

A 16mm cinema projector is an essential so long as a suitable supply of films is available. This machine is also very useful during leisure hours. Most countries are tied to 16mm because of existing equipment. Super 8 deserves consideration because of lower costs all round and ease of producing simple low-cost films. Eventually, closed circuit television and video tape recording, if maintenance and initial cost problems are resolved, may be much more useful, particularly as it is much easier to produce a programme, and no expensive and delay in processing is involved. But this is way in the future, unless someone can set up a project to test the system under field conditions.

A high-powered modern automatic slide projector, preferably of a type for which only a "dim-out" is required for use in daylight. There are many simple and ingenious methods of obtaining a "dim-out" in a classroom, while at the same time allowing for sufficient ventilation. The use of sliding shutters or blinds, together with extractor and rotating fans can obtain the right combination of "dim-out" and ventilation.

A good 35mm camera of an "instant" type should be obtained so that slides of local faces and places can be made,to give added impact to the lessons. Anyone with a minimum of training can use an "instant" type of camera.

Supplies of Films and Slides

Films: In the capital cities of most countries there are many film libraries operated by embassies, international agencies, commercial firms, etc., from which films may be hired without charge. These, together with any government libraries, can offer a steady supply of films, provided they are given adequate notice.

The best policy is to make personal contact with the film libraries to explain the particular circumstances of the constantly changing audience at a training centre. The average formal school only requires to borrow a film for two or three days to show a few times before returning it to the library. A training centre with a new audience each week really requires a programme of suitable films on a long loan basis of six months or more. This can usually be arranged if the position is explained to the libraries.

Slides: In many countries sets of slides are made at either the national visual-aid centre, or similar organizations, and are made available to centres. These can be given a local bias if the centre makes some of its own slides to mix with the standard sets.

Operation, Maintenance and Storage

It is essential that the expensive and comparatively fragile visual-aid equipment be the responsibility of one member of the staff. He or she should be trained in the operation and maintenance of the equipment. By agreement with the Principal, other members of the staff may be trained in the operation of the equipment, but one person should have sole responsibility for maintenance, for keeping adequate supplies of spares, and arranging suitable storage facilities.

Regional training officers or the supervisory staff at head office should carry a suitable range of spares to supply centres. In this respect, there is much to be said for equipping all centres with the same makes and models so as to simplify the questions of spares, maintenance and training.

Cinema projectors in regular use should be sent to the agents for major maintenance at least once a year, and should be transported to and from the agents by the headquarters or regional staff. A simple log book of operating hours should be kept for the projector, with a monthly total. Agents undertaking the maintenance should be advised of the total hours operated.

The working life of a cinema projector will be prolonged if it is housed in a suitable projection cabin so that it does not have to be moved every time it is used. An electric fan should be installed to blow insects away from the machine during operation and so avoid damage to both the projector and the films. The use of an inexpensive but well-designed projection cabin is much appreciated by the operating staff; it can also serve as a store for films and spares.

2. Non-Projected Visual Aids

In addition to the blackboard, there is a wide range of non-projected aids suitable for training centres, such as wall charts, posters, flannelgraphs, flip charts, photographs, models, samples, puppets, etc.

It has been found in practice that staff use these aids with more enthusiasm if they themselves have made them. Home made aids allow for local emphasis and the use of the local language. With home made aids, care should be taken over the correct size of illustrations and writing.

Wall Charts and Posters

Wall charts should be the responsibility of one member of the staff and proper storage space should be provided. Charts and posters should be sorted into subjects, and each day of the course the charts should be changed to present a new subject. The dining hall is a suitable display area for posters in addition to the classroom walls.

Flannelgraphs

These are very effective if properly used and properly stored. They are valuable in the teaching of many home economics subjects and are often used in conjunction with real objects.

Success in using a flannelgraph lies in the storage system. The whole impact of the lesson can be spoilt by a missing portion of the flannelgraph. The flannel is best mounted on glass paper which is inscribed with a number in order to preserve the correct sequence of presentation.

Flip Charts

Flip charts are apt to be used more effectively if they are locally made. There are many aids to assist drawing: possibly the slide projector is the best for enlarging drawings to the required size.

Models

When models are used, it is very important that the class understands the scale of the models in relation to the real objects.

Samples

Screw-top glass jars are very suitable for samples of seeds, fertilizers, etc. and should be clearly labelled in the required language.

Display Rooms and Trade Samples

A number of centres have trade display rooms in cooperation with commercial firms. The firms supply the visual aids and the sample packs, tins and equipment, and the current prices payable in local retail stores.

3. Radio and Television

Radio: All centres should have radio sets both for information and entertainment. In countries with "radio forum" type programmes for farmers, the centres should have supplies of leaflets to distribute to the farmers drawing their attention to the special radio forum programmes.

Television: A number of countries now have television; this is a mixed blessing. Some have worthwhile rural-oriented programmes, but in other countries most of the programmes consist of out-of-date material from abroad, and all (in the countries considered here) are in English. With the introduction of television, some centres have ceased to operate their cinema projectors because it is easier to turn on the television than to show a programme of films. Principals should try to check this tendency, as good films with question and answer periods can be of greater value than many television programmes.

A Package Deal of Audio-Visual Aids

Some subjects that require significant changes of attitude on the part of farmers can be taught by using a whole series of techniques and visual aids. For example, a technical programme on the artificial insemination of cattle may be arranged as follows:

1) Introductory talk and discussion
2) Slide show and discussion

3) Talk by an inseminator and an explanation of his equipment; additional slides to illustrate the operations inside the cow.

4) If possible, an actual insemination

5) A film on artificial insemination activities in other countries to convince the farmers that it is a widespread and recognsed practice.

Principals and staff may adopt this type of package approach for such controversial issues as land reform, land enclosure, grazing control and family planning.

CHAPTER X

FOLLOW-UP VISITS TO FARMERS

Post-course visits can be divided into two types with two different objectives:

1) Follow-up visits to farmers to assist them further after their course.

2) Evaluation vists by the teaching staff of a centre to assess the effectiveness of their teaching.

1. Follow-up Visits

These can be defined as post-course visits to farmers to continue the teaching process initiated during the course at the centre. In the majority of countries, these visits are mainly the responsibility of the extension service. However, depending on the programmes of courses at centres, it is often possible for the teaching staff from the centre to assist. If instructors from the centre assist in follow-up, it should be in cooperation with the extension staff.

In theory, the policy for this post-course assistance to farmers is very sound and is very much appreciated by the farmers. However, in many countries, follow-up visits are only possible in practice for a very small proportion of those who have attended courses.

In areas of high production potential and high population densities, field staff have a wide range of duties. In addition, the ratio of extension staff to farming families is very small; and this, combined with communication and transport problems, limits the number of farming families visited.

A survey carried out in Kenya by the Institute of Development Studies of the University of Nairobi, in February 1972, showed that extension staff were only visiting two farming families a day. This small number of visits, combined with the fact that the district training centre is continually increasing the number of farmers requiring visits, indicates the practical problem of organising a satisfactory operation in this respect.

Countries faced with the practical difficulties of satisfactory follow-up have made various proposals to overcome the problems. Some of these are:

i) Group recruiting from a fairly compact area, so that follow-up visits can be carried out by a meeting of the group called together by the course leader.

ii) Advising both groups and individuals at courses that they should request follow-up visits. Trainees should be given the names and location of the nearest extension staff and advised to contact them for further assistance.

iii) Sending the farmers home as self-reliant as possible by the provision of functional take-home literature and advising them not to expect too much post-course assistance.

iv) Attendance at the courses by junior members of the extension staff thereby establishing a personal relationship with the farmers which will be subsequently maintained.

Combinations of these methods should be tried and adopted to suit local circumstances. When follow-up visits are possible, it is essential that "follow-up reports" are prepared and circulated to all interested parties.

In some countries where circumstances allow for a fairly intensive follow-up, the staff use special pro-formas to standardise the information obtained on each visit.

Commununities that have church-sponsored farmer training centres may have special follow-up teams. These are posted throughout the district with bicycle transport and a supervisor and coordinator with a suitable vehicle. An example of this system is Kaaga Rural Training Centre in Kenya. The teams work very closely with both the field extension staff and the training centre and provide a most satisfactory service. However, this is only made possible with the assistance of non-governmental funds.

2. Evaluation Visits

It is important that the staff of training centres should occasionally have the opportunity to visit the farmers at their homes. This allows them to keep in touch with events in the field and also enables them to evaluate their teaching methods. However, as with follow-up, the pressure of work at the training centre usually permits no more than short visits to a random selection of ex-trainees.

In some countries, however, prevailing conditions do allow the staff to make both follow-up and evaluation vists. These are possible when non-agricultural courses are being held at the centre, or the centre is closed for some reason. It is not sound policy for the centre to close for the express purpose of follow-up or evaluation visits. The high capital cost and the special value of the centres to the local farming population require that they remain open as long as possible during the year.

Planning Ahead

Every training centre will occasionally have course cancellations or failures. A good Principal should anticipate this and, provided transport is available, arrange an alternative programme of evaluation visits. To utilise the staff in this way at short notice, alternative programmes should be outlined in advance.

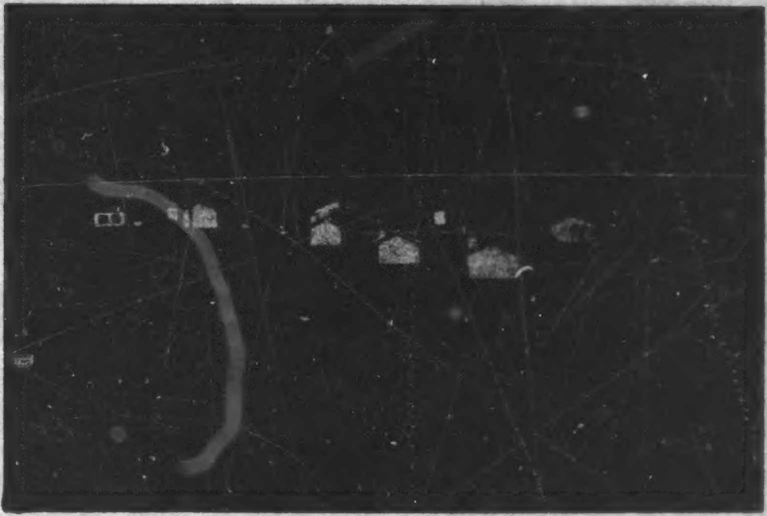


Fig. 1
Ankole District Farm Institute, Uganda
A compact and well-planned Centre

Fig. 2
A Modern Trend in Kenya
Taita FTC with double storey dormitory block and built-in ablutions

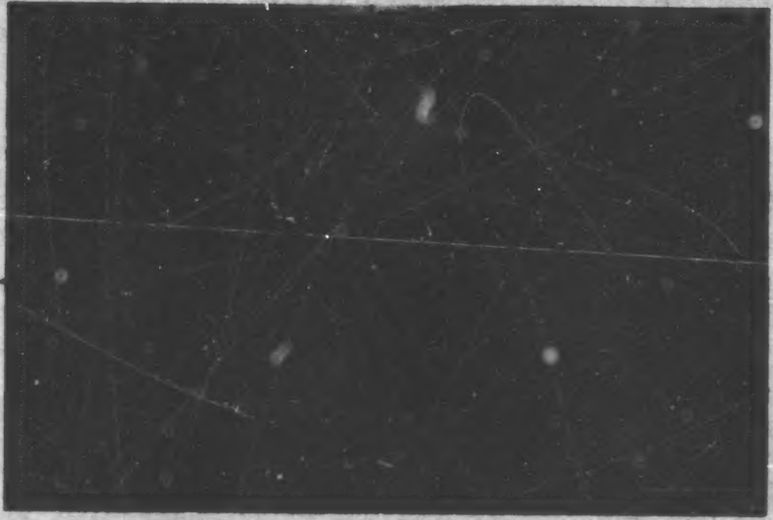


Fig. 3
A Typical Classroom at a Swaziland Centre

Fig. 4
National Seminar on the Training of Botswana Farmers, September 1973
A group of participants at Mochudi Village

Fig. 5
A Group of Staff at Msinga Rural Training Centre, Tanzania

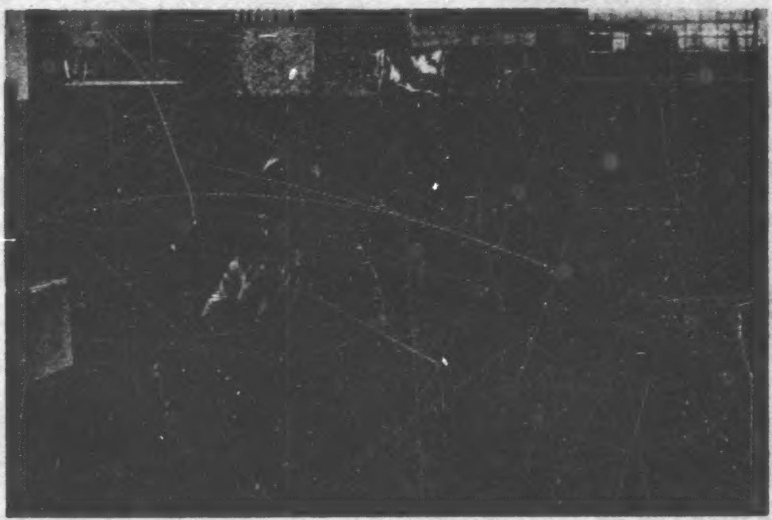


Fig. 6
Domestic staff should have good working conditions:
they work very long hours
Ngong Farmer Training Centre, Kenya

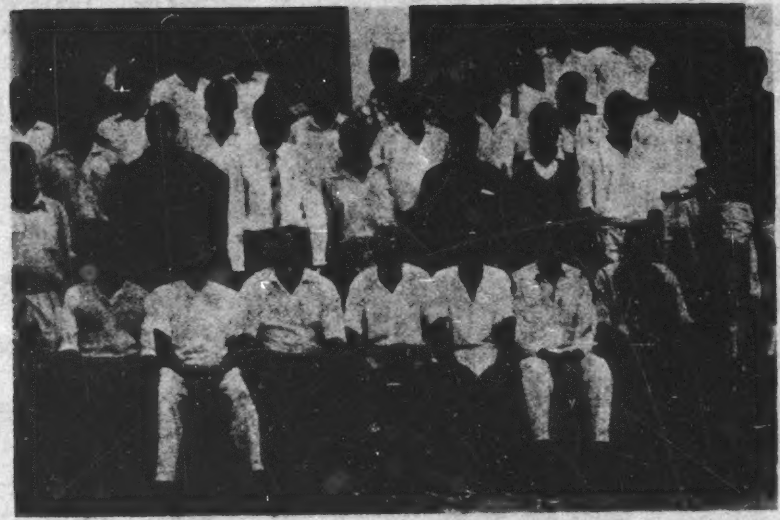


Fig. 7
A Traders' Course at Lango District Farm Institute, Uganda
demonstrates the multipurpose use of training centres

Fig. 8
Mukono District Farm Institute, Uganda
Courses for women cover general agriculture and home economics

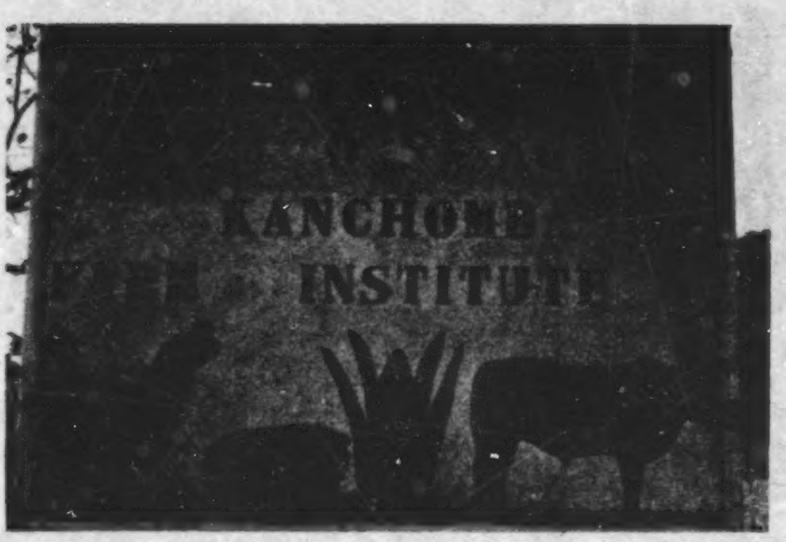

KANCHOMB
INSTITUT

Fig. 9
In Zambia and Malawi, all Training Centres have the same type of name board

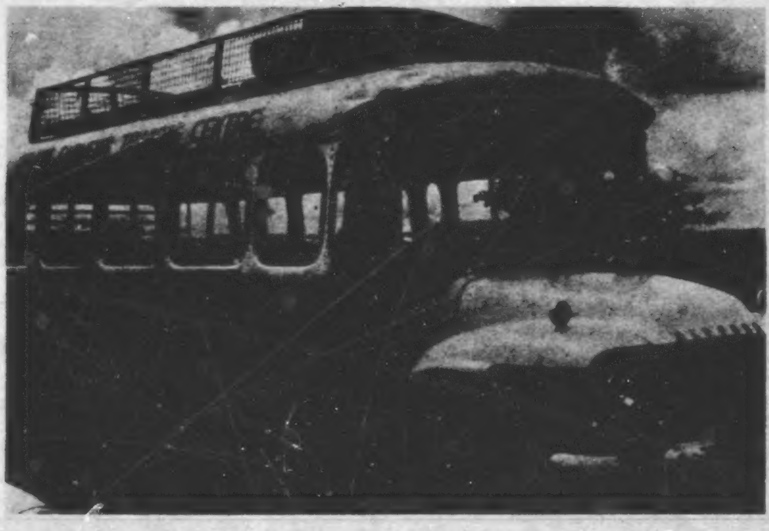


Fig. 10
Coast Farmer Training Centre, Kenya
Transport can be used to advertise the Centre

Fig. 11
Buhemba Rural Training Centre, Tanzania
Farmer students learning by doing

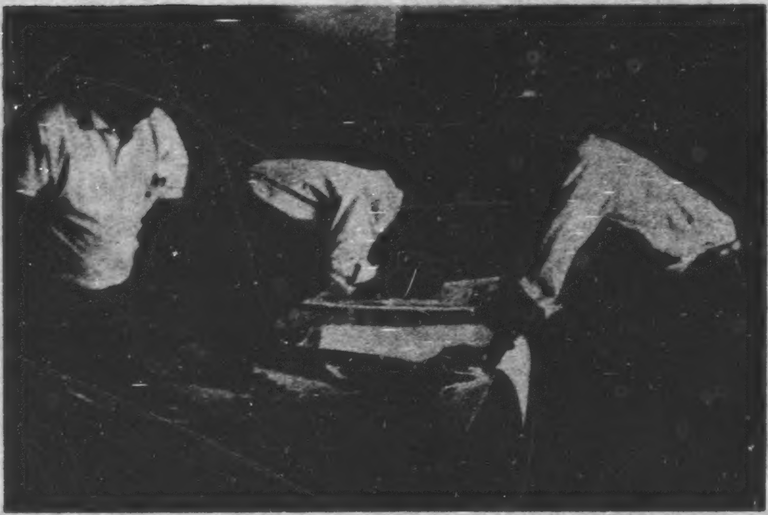


Fig. 12
A Visual aid workshop for Training Centre Staff
Keembe Farm Institute, Zambia

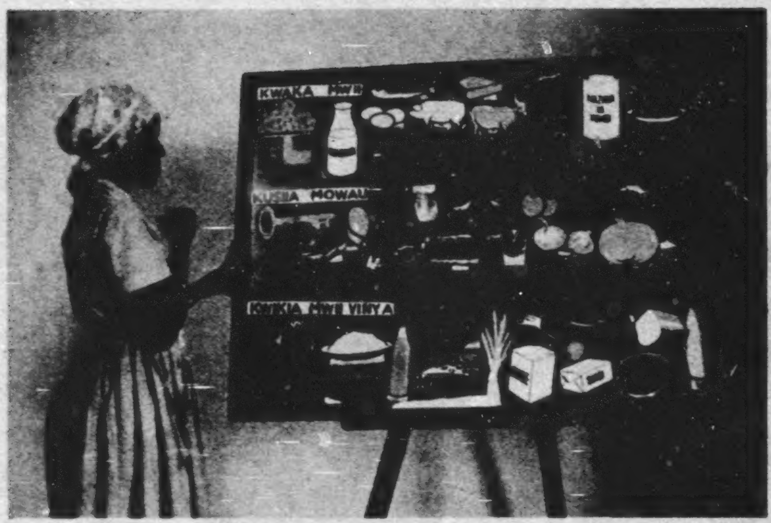

KUSHA MOWALI
KWAKA MWILI

Fig. 13
A Lesson on Nutrition with the aid of a flannelgraph
Maseno Farmer Training Centre, Kenya

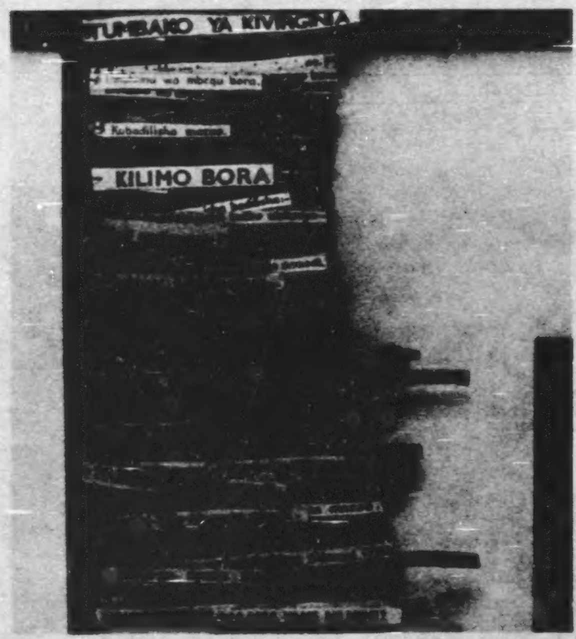

TUMBAKO YA KIVIRGINIA
KILIMO BORA

Fig. 14
A number of Rural Training Centres use flannelgraphs and shown above is the novel method of storage used at Iringa Rural Training Centre, Tanzania

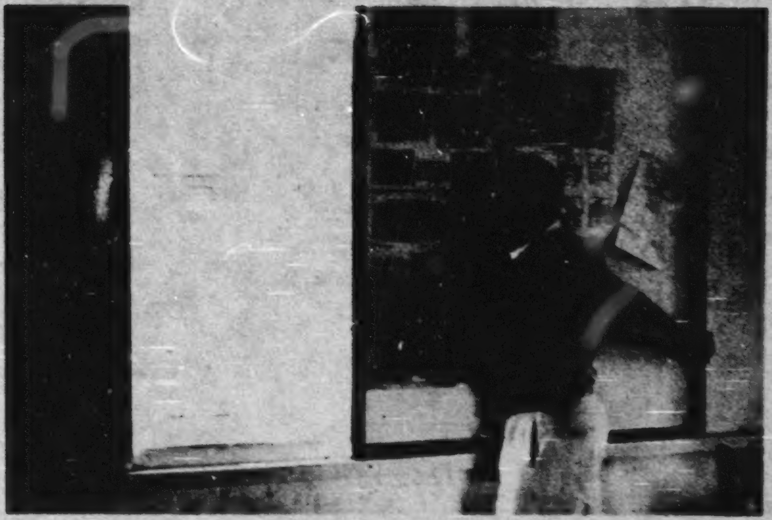


Fig. 15
Sliding window shutters can achieve any degree of
blackout for daytime projection
Zomba District Training Centre, Malawi

Fig. 16
Display Room at Msinga Rural Training Centre, Tanzania

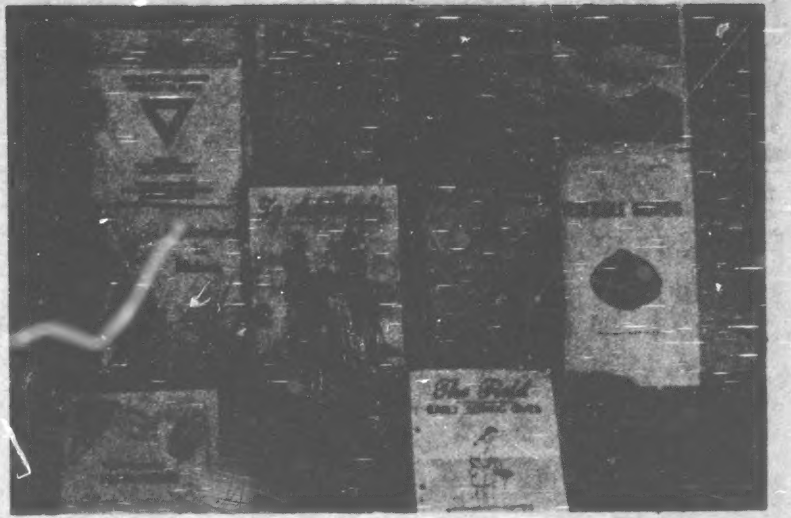


Fig. 17
Display of take-home leaflets and pamphlets
M'Mbelwa Farm Institute, Malawi

Fig. 18
Herd feeding on Setaria fodder
There is more scope for fodder crops to be grown in rural training centres
Msinga Rural Training Centre, Tanzania

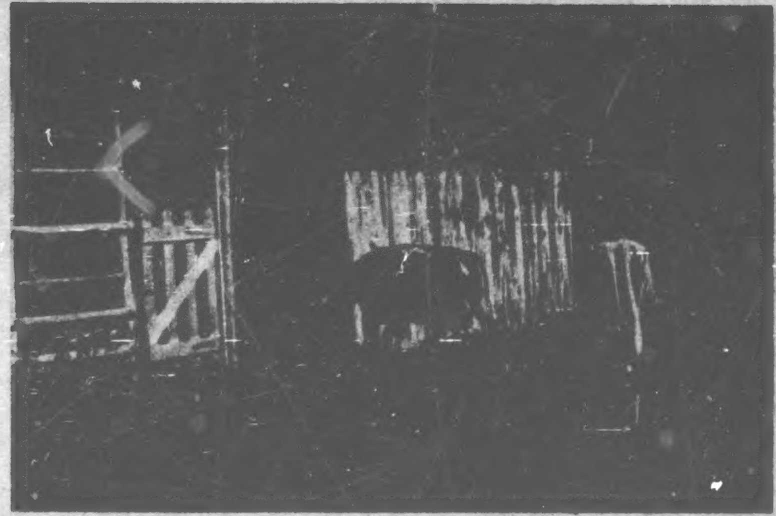


Fig. 19
Embu Farmer Training Centre, Kenya
Demonstration buildings should be in keeping with the economic circumstances of the farmers, the cost of construction being indicated on the building

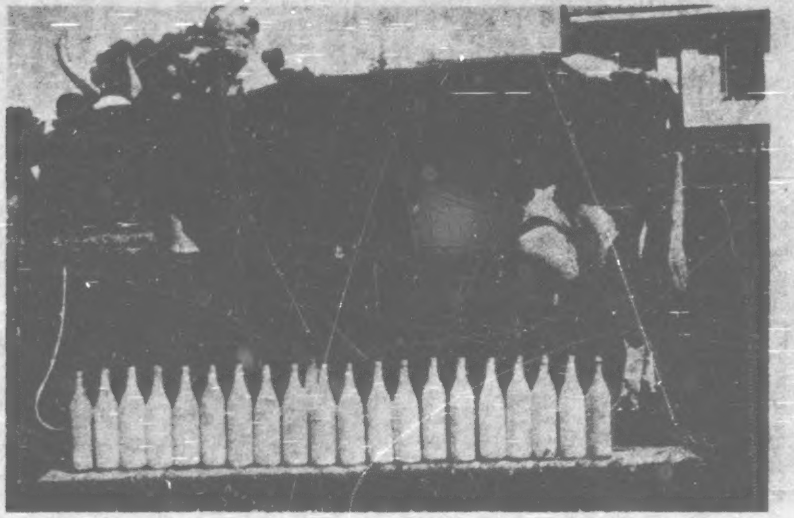


Fig. 20
Bukura Farmer Training Centre, Kenya
Demonstrations should be impressive.
Three gallons from one cow and not one gallon from three cows

CHAPTER XI

EVALUATION OF RESIDENTIAL TRAINING CENTRES

Evaluation of training centres should be undertaken at different levels by a variety of methods. However, it should always be borne in mind that the centre is part of the extension service. At no time should credit be given to the centre at the expense of the extension service. This can only result in justifiable indignation and lack of cooperation. Evaluation should be a continuous process, carried out at all levels by as wide a range of interested parties as possible.

Evaluation by the Training Centre Staff

The Principal and his staff should make a critical evaluation of their own centre. This should cover the course content, the teaching methods and the physical facilities. Regular after-course evaluation meetings should be held to allow all members of staff to make comments on all aspects of the course. These should discuss any criticism made by the course participants and visiting staff.

Evaluation by the Participants

On the last day of the course, participants should be encouraged to state their views. This can be in cooperation with the DAO or simply with the training centre staff. Complaints, criticisms or suggestions may be outside the jurisdiction of the district staff. But any justified criticisms or suggestions should be recorded and if a definite trend is established over a number of courses, action taken to put matters right.

Evaluation by District Staff

As mentioned in considering recruiting, the DAOs and extension staff should be given the opportunity for regular, on-the-spot, constructive criticism of all aspects of the centre. Extension officers should also provide the centre staff with "feed-back" opinions from all sources.

The organisers and the staff of other ministries and agencies using the centre should also be invited to contribute "feed-back" information from their participants. Non-government voluntary agencies and church organizations are often very useful sources of constructive opinion. Whenever a definite trend is apparent, action should be taken or repeated written requests made for action, until satisfaction is achieved. Regional and/or national level staff should be invited to attend evaluation seminars or meetings at regular intervals in order to keep up to date with trends and opinions.

Evaluation by Records, Returns and Reports

Training centres are judged mainly by statistical returns and reports; to be able to prepare accurate and informative reports depends on the keeping of good records.

There should be an agreed and uniform system of records at all levels, from district up to ministry level. All centres, both government and non-government should use the same system. Changes should only be allowed following general agreement and the publication of a new directive on the revised system to be used. The larger the training centre programme, the more essential it is to adhere to the agreed system. This much simplifies the compiling of reports at both regional and ministry levels.

The main types of records required at a centre are:

i) Attendance records at courses
ii) Farming and demonstration records

Attendance Records

As indicated under the planning of programme courses, each course on the programme will have a code number as well as a title. Attendance records should be designed to give the maximum information on each of these courses, using the same code numbers in the register.

Appendix VII shows a suggested layout for a student attendance register which, if properly maintained, will provide at a glance all the necessary information about each course.

Monthly or Quarterly Returns

Appendix VIII shows a type of return in use for either monthly or quarterly information that can be rapidly completed from the register.

Annual Returns of Percentage of Utilisation

Appendix IX shows a type of annual return that can be prepared from these records.

Attendance Histograms

While a well-kept student attendance register gives the Principal a clear idea of the performance of his centre, he should also communicate this information to all concerned. This is best done by the use of a histogram which is a simple diagramatic "picture" of the performance of the centre. This should be sufficiently large to be easily seen and should be displayed prominently at the centre. An example of a histogram will be found at Appendix X.

Reports

All centres should prepare either monthly or quarterly and annual reports on their activities as requested by the ministry. It is essential that these be prepared to an agreed and uniform pro-forma with clearly numbered and titled headings. No two countries will use quite the same layout; however, it is essential that within one country, at all levels, a uniform system is used. In this way, the preparation of regional and ministry reports will be very much simplified. Reports should be as concise as possible, but with every sentence giving a clear message to a reader who may not be familiar with the centre.

Independent Evaluations

It is a good policy to invite completely independent persons to undertake evaluations of training centres. This may be done at two levels:

1. Internal Country Staff

In some countries, second-year agricultural diploma students undertake evaluations of training centres as a vacation project. If properly prepared, these evaluations can be very worthwhile. Students attend a one-week course at the centre to gain the background information. During the week they are given the names of farmers in their home areas who have attended courses. The main objectives of the evaluation are decided and a pro-forma or questionnaire developed. On returning home, they are advised to visit the farmers on an informal basis, without the questionnaire. After several visits, they can obtain sufficient information to complete the questionnaire. They are also encouraged to visit neighbours who have not attended courses so as to determine their points of view, reasons for not attending, and their sources of information on technical agricultural matters.

Following the evaluation, a meeting should be held between the evaluators, the extension staff and the staff of the centre so that points can be clarified.

2. Evaluation by External Agencies

The staff of international agencies can also be invited to carry out evaluations on much the same lines. In some countries these have been undertaken in considerable depth and with the use of external funds. Care should be taken that the briefing and objectives are clearly understood; agency staff should be closely assisted by local staff.

CHAPTER XII

DEMONSTRATIONS AND FARMING ACTIVITIES

The total area of land required for the various types of training centre differs considerably. Large-scale farmer training centres and the range training centres naturally require a large farm or ranch. It is often easier to obtain this type of land because in many cases it will have been previously surveyed and registered.

In the case of training centres for small-scale farmers, in areas of high population and scarcity of land, it is often difficult to find suitable land. This varies from country to country. Generally speaking, the more advanced the land tenure and land systems, the more difficult it is to obtain land.

In East Africa, many of the original training centres were situated on surplus government land: such sites as outdated seed farms, livestock improvement centres, etc., that had fallen into disuse through changes in policy. This easy answer to obtaining land presented many other problems, such as that of acquiring much more land than was required, insufficient capital to redevelop or reclaim the land, insufficient recurrent funds to maintain the land, and lack of any long-term policy to make economic use of the land, and the production of sufficient revenue. Many of these centres did - and still do - suffer from being badly situated in relation to the area they serve and the district headquarters.

In other countries, it was possible to obtain smaller and better-situated areas of land that avoided many of the problems mentioned. Unless a centre has a long-term development plan to be transformed into a district development centre or a large multi-purpose centre, it is better to start with the minimum land requirements. There should be just sufficient land for the essential institutional buildings and suitable demonstrations for the area. This avoids the misunderstandings which may arise concerning large-scale farms in areas of land shortage and high population pressures.

Demonstration Area

It is generally accepted that well-planned and practical demonstrations are required to teach adult farmers. There is, however, considerable disagreement as to the best method of presenting the demonstrations; they fall roughly into two schools of thought, as follows:

1. A whole range of unrelated demonstrations of buildings, equipment, land-use methods, crops and stock with suitable method and result demonstrations.

2. A demonstration small-holding with the same range of demonstrations, but all related to the one demarcated unit of land.

The land tenure and farming systems of an area will often simplify this problem because the livestock may be on unimproved communal grazing and only the arable land will be enclosed or demarcated. There are advantages and disadvantages of both systems, but whatever the system the following procedure should be followed:

1. An agreed long-term policy should be decided and recorded, especially in the case of long-term result demonstrations. Unless this is done, changes of staff can result in changes of policy before the results can be demonstrated.

2. All demonstrations of buildings and equipment should be costed and priced, because it is essential for demonstrations to be realistic and economically feasible for the farmers. The costing of buildings and equipment will keep the whole demonstration within the range of local economic possibilities.

3. At all outside demonstrations, the convenience of, and facilities for, the class should be taken fully into account so that the trainees enjoy the maximum benefit. A class standing in the sun with poor visibility, for example, will soon lose interest in the proceedings.

4. Demonstrations of all types should always appear up to date; and to achieve this, a member of staff should be responsible for every demonstration.

5. As soon as a demonstration ceases to "demonstrate", it should be done away with. If demonstrators have to resort to excuses, the impact is lost.

6. Accurate records and accounts should be kept of all demonstrations; these can often be valuable teaching aids.

7. Whenever possible, outside demonstrations should be held during the cool of the day.

Method Demonstrations

Presenting a successful and impressive method demonstration to groups of practical farmers is far more difficult than giving them a lecture. However, if well conducted, it has far greater impact. A check list should be kept of all the items required, as any hitch in a demonstration will weaken the impact. It is sound practice for staff to work in pairs when presenting a detailed documentation; one staff member carries out the demonstration, the other gives a running commentary. In this way every demonstration has two trained demonstrators who can alternate their roles. Time should be left for questions and, if need be, repetition and practice by the class.

Result Demonstrations

Before planning a result demonstration, estimates should be made of the length of time the "result" is likely to be visible. Many result demonstrations of cultural or manurial treatments show a clear difference for a short period. It is no use giving a class a demonstration if the result cannot be seen, and farmers on average only attend the centre for one week in the year. In some cases, sets of coloured slides with suitable caption boards can be taken both during the growing period and at harvest, to illustrate the results obtained.

Result demonstrations should have clear explanatory plot boards so that the farmers can understand them if visiting the plots on their own.

Classroom Demonstrations

Many home economics subjects can be demonstrated in the classroom. Food preparation, cooking, etc. can be carried out on metal-topped tables. All utensils used in demonstrations should have the local prices marked on them and should be in keeping with local standards.

Demonstration Small-Holdings

As noted earlier, the use of demonstration small-holdings is a controversial subject, but if well planned, they can be very effective instructional aids. The advantages are as follows:

1. The majority of training centres are in areas of medium to high potential. To develop this type of land there should be a sound land-use policy. Sound land use is usually dependent on all, or some, of the land being enclosed; a holding allows for demonstrations of land enclosure by many simple and inexpensive methods.

2. To carry out land enclosure of both the total unit of land and to sub-divide the land within the holding, land-use planning or farm planning is required. In areas that recognise the need for enclosure, the demonstration holding is a valuable aid to discuss both land-use planning and the methods of enclosure.

Many points can act as a basis for discussion during demonstration periods. Some of the major ones are:

a) Demonstration of the planning of the holding in relation to: the situation of the homestead, the system of roads and tracks, access to outside road systems, water supply policy and the sub-division of land into roughly equal-sized fields on the contour with natural drainage ways.

b) The system of enclosure can be well demonstrated by different types and methods of fencing and hedges. Different fencing systems should be costed so that a farmer can estimate his own costs. Suitable and cheap home-made gates should also be demonstrated, and also the hedgerow planting of suitable trees.

c) Discussions on the farming system and rotation of crops and stock should be held and the most favourable locality for long-term, high-priced cash crops determined. The rotation can demonstrate alternate husbandry and the build-up of fertility, the rotational grazing of grassland and the relationship of the livestock to the carrying capacity of the holding. The fodder crops and dry season feeding policy, and the storage of hay or silage may also be discussed.

d) The locality of the homestead and the type and number of farm buildings to be constructed of suitable local materials should be decided and costed, and the cost sheet and quantities displayed on all buildings. Fruit trees and vegetable gardens should be situated so as to make use of waste water from the homestead and farm buildings.

In fact, a well-planned holding can be the major teaching aid and can promote and stimulate changes in attitude on many aspects of land use. To combat the usual criticism of such a holding, the following points should be observed:

1. The holding is really a composite collection of many good practices being used in the district. If a method is challenged, the answer should be: "Go and see Mr. X, we got the idea from him".

2. If possible, have a tenant farmer and his family on the holding. If this is not possible and employed labour is used, it is important not to have labour in excess of the equivalent of a family unit for the area, i.e. the man and his wife, children and possibly older dependents.

3. Keep the livestock on the holding the whole time in order to demonstrate the full carrying capacity. However, they may have to go off the holding for water, or dipping if that is the local policy.

Farm Records and Accounts

These can be demonstrated and used as a teaching aid. The records consist of a diary for crop records, a well-designed recording card system for the livestock. Accounts should list capital expenditure and the prices should be displayed on the various items.

The recurrent accounts should be a very simple double entry system of expenditure and income. It is essential that the system be simple and capable of adoption by any interested farmer. The last year's balance sheet with explanatory notes should be an essential hand-out and also a teaching aid. In preparing a balance sheet, it is important to be careful that a deduction is made from all crops harvested and all animal products to the equivalent of what the family would consume as subsistence. Only saleable surpluses should be shown on the balance sheet.

Large-Scale Farming at Training Centres

For reasons already mentioned, some training centres in small-scale farming areas find themselves with comparatively large areas of land to utilise. Some of these areas are an embarrassment to the training centres and the situation is very much misunderstood by local people. Every effort should be made to obtain a definite policy for the utilisation and development, or disposal of unused land.

Surplus land and lack of recurrent funds may mean that the training centre is surrounded by an area of unproductive "bush", resulting sometimes in the establishment of commercial farms with the aim of producing food for the centre and earning revenue.

Unless separate and well-trained staff are available to take over the farm management, the farm becomes an unwelcome additional responsibility for the Principal. In theory, if capitalised, these so-called commercial farms should make a profit; however, few, if any, do in fact make sufficient funds to cover operating expenses, and all revenue usually has to be paid to governments. A Principal faced with this situation should make every effort to have the land taken over by some other organization; educational activities should not become involved in revenue earning at the expense of their educational purposes.

In Zambia, the established policy is described as follows:

> Farm institutes and farmer training centres are not considered agricultural production centres. Crops, poultry and livestock production are of secondary importance to learning. Crops, poultry and livestock are only grown and kept for practical teaching purposes; in other words, the farm side of the centres is considered to be an outside laboratory, or practical teaching aid to support the theory of classroom.
>
> Established farm and agricultural producers in the vicinity of the centres can also assist in the training process; course members can visit local producers to see for themselves how their own kith and kin are farming.

In Lesotho, there is a system of training farms attached to or very near to the farmer training centres. These farms are funded by a separate branch of the ministry and have up to 30 resident young trainees, both boys and girls, doing a ten-month course of practical agriculture. They pay no fees but work for their keep. The farm policy is under the direction of the Resident Officer (Principal) at the farmer training centre and the farm is available for all the demonstrations, etc. required by the centre.

CHAPTER XIII

FINANCE

This chapter will deal with aspects of finance, i.e. capital, recurrent expenditure, revenue and accounting. Unfortunately, accurate up-to-date information on all aspects of finance is difficult to obtain and with the present economic conditions in most countries, it is apt to be out of date within a few months.

Capital Expenditure

As shown in Appendix III, during the 17 years from 1957 to 1974, some 133 residential training centres were built in the nine countries. At a very conservative figure of $70 000 per centre, this represents a capital investment of over $9 000 000. The bulk of the expenditure was in Kenya, Tanzania, Zambia and Malawi, with a total of 107 training centres between them.

In the early days of residential farmer training, in the late 1950s, the majority of centres were built with government funds. However, when the programmes expanded in the 1960s, much of the capital was derived from external agencies and donors. The capital donations were received from a wide range of donors, and, in some countries, up to 60 percent of the centres were built with donor capital. At the risk of overlooking some of the donors, specific mention should be made of the contributions made by USAID, FFHC, FAO, WFP, UNICEF, OXFAM and the Nordic Missions. In addition, assistance was received from well-known Trusts and Foundations, commercial firms, and individuals. In some countries, church organisations made valuable contributions, often in the lesser known and more remote areas.

The use of capital funds from generous donors is, of course, very welcome, but it can lead to frustrating situations. In many cases, funds are made over to the government against prepared estimates based on standard ministry of works building plans. This prevents any initiative or flexibility in the buildings to avoid the clear limitations of the existing plans. In other cases, donors, or their local representatives, may have fixed ideas of what is best for the area in spite of a comparative lack of local knowledge. The classic example is the case of a deep-litter poultry house built for a cooperative. When completed, the poultry were moved out and the cooperative staff moved in both to work and live in the poultry house. It was far too good for poultry!

Contact with Donors

It is regretted that owing to staff changes in many countries little or no contact has been maintained with the original donors. Centres that have kept in contact and have sent reports and photographs to the donors have often received additional assistance when short of essential requirements. Also, the problem of shortage of donor funds for farm development as distinct from capital for institutional buildings might be mentioned.

Re-Capitalisation of Existing Centres

From Appendix III, it will be seen that a number of the original centres are now as much as ten years old. Many of these are out of date, with worn-out and unserviceable equipment. As noted in Chapter III, these older centres are in urgent need of modernisation. Unfortunately, it is less easy to obtain external funds for renovations than for new centres. This has resulted in old centres closing down as being non-functional and out of date, but new centres being built with external funds. This leads to considerable frustration and low morale among training centre staff and a consequent falling off in attendance.

Following repeated seminar recommendations, governments are now channelling some funds toward renovating and re-equipping some of the older centres; this is a welcome trend. Donor agencies, themselves, are going through difficult times with many new and urgent priority calls for assistance. However, when contact has been maintained with donors by the executants of projects, some assistance has often been made available to the mutual satisfaction of both parties.

Recurrent Expenditure

Very few donor agencies provide recurrent expenditure for the operational expenses of training centres. The main exceptions to this are the church organisations, which are an excellent example of maintaining contact with the centres through their local congregations and by reciprocal follow-up visits. However, when donor agencies do offer recurrent funds over a limited period of years, the takeover by government should be arranged on a "sliding scale". For example, over three years of assistance, the government contribution should increase annually from 33 percent to 66 percent to 100 percent and government estimates prepared to cater for this increased expenditure.

Estimates and Allocations

Allocation of recurrent funds should be made against well-prepared and realistic estimates, and the annual estimates should be prepared in two parts:

1. Estimates of funds required to operate the teaching side of the centre.
2. Estimates of funds required for the operation and running expenses of the farming activities.

Allocations

Funds allocated for operating a training centre should be separately identified as training funds, and the Principal should be advised of his half-yearly and annual allocations. If possible, the Principal should control his own funds, but this is not always possible for accounting reasons. In some countries where training funds have not been separately identified, centres have had to close owing to lack of funds. Yet the DAO has returned unspent balances at the end of the year. This state of affairs is hard to understand and indicates a low level of cooperation and liaison between the Principal and the DAO. Fortunately, as a result of repeated recommendations from seminars and visiting missions, this situation has now been very largely overcome. Where recurrent funds are not available, the centre should be closed and the staff re-deployed to other duties until the situation improves.

Revenue

Revenue at the majority of training centres is derived almost entirely from farming activities. However, in the countries that charge attendance fees, a small revenue is derived from this source. Some revenue may also be derived from the sale of seeds and other materials to course participants.

For this reason, revenue estimates should be presented in two parts:

1) Non-farm revenue - fees and miscellaneous sales

2) Farm revenue

Non-Farm Revenue

Revenue from Attendance Fees

As will be seen from Appendix I, only three of the nine countries charge fees and, even in these countries, attitudes are changing as shown below:

Kenya: At the National Seminar on Farmer Training held in April 1972, one recommendation reads as follows:

> "Payment of Fees
>
> The conference has given serious consideration to the report of the Training Review (Wamalwa) Committee 1971-72 and, because of the administrative and mechanistic burdens that will be involved in implementing the recommendation (304), the conference makes the following recommendation:
>
> that in keeping with the Government policy of eventual free education, adult farmer training courses should be provided free of charge in order to stimulate and encourage the policy of 'Back to the Land'."
>
> A rider was added that:
>
> "special protective measures will have to be devised to ensure that the results of this recommendation do not have an adverse reaction upon those non-government FTCs which are very reliant upon their existing fee income."

Swaziland: At the National Seminar on the Training of Rural Families in Swaziland held in May 1971, the following recommendation was passed:

> "that this National Seminar on the Training of Rural Families recommends that Government reviews the policy of fees at farmer training centres, with a view to standardising fees at a nominal rate."

Lesotho: At the National Seminar on Education and Training for Rural Development, held in August 1972, the following recommendation was passed:

> "that the charging of fees for boarding and lodging by adult farmers at farmer training centres should be stopped."

There is a general trend toward a recognition that attendance fees contribute only a very small amount of revenue and that, in some cases, the payment of fees has an adverse influence on attendance by a category of farmer most in need of training.

Farm Revenue

It is essential that realistic annual revenue estimates be prepared. These should constitute a target which if achieved or exceeded can often have considerable influence on the amount of recurrent funds allocated to the operation of the farm. The estimated revenue should be entered in the revenue cash book so that a continual monthly and quarterly comparison can be made against the actual revenue collected.

Accounting

With the exception of non-government training centres, the accounting systems at training centres are usually based on the security of funds and the need to comply with financial regulations. Naturally, these regulations have to be followed, but the resulting accounting system does not always provide the information required for costing projects or for teaching purposes. In many cases, the majority of the day-to-day accounting is carried out by a clerk and the payment vouchers signed by the Principal.

Payments are entered into the vote book under the particular vote heading and no analysis of expenditure is made; the main interest of the Principal and the clerk is to make sure that the votes are not overspent. This system provides little or no information to the teaching staff, or the farm manager, and staff can be quite ignorant of the economic aspects of their demonstrations and projects.

It is preferable that the farm accounts at the centre be kept quite separately from the accounts of the teaching side; and that separate cash analysis accounting systems be used for both the farm and the centre. In practice, this leads to some extra work on the part of the Principal and the Farm Manager, but it is essential and important work. The usual system operates as follows:

When a payment voucher is made, the clerk enters the payment into the vote book and adjusts the balance remaining. The voucher is then passed to either the Principal or the Farm Manager, or both. They enter the amounts concerning them into their cash analysis book and then allocate these to the particular projects concerned. The voucher is certified as entered in the cash book and it can then be signed and passed for payment.

When this system is used, the teaching staff are encouraged to examine the cashbook and so keep in touch with the financial aspects of their work. If this system is not used, many of the staff are in complete ignorance of current prices and costs. A visiting mission once asked a Farm Manager the cost of a bag of cattle feed; this could not be determined until he sent for the clerk who had to look up the last payment voucher to find the price.

Teaching staff should make quite sure that they know the current costs of all products used at demonstrations or on the farm. Ignorance on these matters can justifiably give the farmers the impression that governments are too rich to bother about such details.

CHAPTER XIV

SUMMARY AND RECOMMENDATIONS

The objective in principle in the nine countries has been to build one training centre for each rural district. It will be seen from Appendix I that seven of the countries have just about reached this objective. Ethiopia, as yet, has not started any extensive building and Tanzania has changed over to a policy of intensive training at village level.

During the years 1957-1973, some 133 centres were built and a further 16 planned, making a total of 149 centres. The existing centres have a total of over 5 600 beds available and, with an average of 36 courses per year, this provides training facilities for over 200 000 participants in courses of five days duration.

Prior to the building of the centres, few if any in-service refresher courses were held and the older staff were getting out of date. Now, these rurally oriented district level centres are having a big impact on localised training and the resultant district development. Quite apart from the many thousands of farmers attending courses, the centres are always readily available for all types of staff training within the district.

Many agencies have made valuable contributions to this programme and the majority of centres are now an essential part of the district extension service.

Much has been done to encourage and evaluate the farmer training programme and FAO and the Government of Denmark have devoted both staff and financial support to assist this essential evaluation and re-training of staff. During the period 1970-1973, they cooperated in holding nine seminars or workshops for the evaluation of the training programmes and for the re-training of staff.

The first phase of the FAO/Danish cooperative programme concentrated on national level training with representatives attending from the whole country. The second phase from 1974-1976 aims at holding a larger number of training workshops at a regional or district level. This decentralisation will be very much appreciated as more staff can be involved and it will also allow for the discussion of more local problems. Tables 3 & 4 give an analysis of the participants attending, and a summary of the main subjects covered.

Among the many recommendations passed at national seminars and workshops, the following should be noted:

1) Training centres should be part of the district extension service, not incorporated into a training division involved in pre-service training.

2) Existing training centres should receive sufficient financial support to enable them to operate to full capacity, and the older centres should be brought up to present-day standards.

3) Adequate numbers of well-trained and experienced staff should be made available to staff the centres on satisfactory terms of service.

4) Satisfactory career structures should be established to both attract and satisfy the staff required.

5) With a view to obtaining closer staff cooperation, the headquarters of the district extension service should be based at the district training centre rather than in the local township.

6) Ministries and departments should make greater efforts to implement the recommendations made, or to give reasons for failure to implement them.

APPENDIX I

SUMMARY OF RESIDENTIAL FARMER TRAINING IN THE NINE COUNTRIES

Country	Area 1/ square km.	Population 2/	Source of Inf.	Districts	Training Centres Operat-ing	Planned & Building	Size of Training Centres No. of Beds	Average Number of Courses per Year	Average Length of Course	Fees Paid
KENYA	841,750	9,365,000	1967 FAO survey	42	34	6	30 to 100 average 50	36 to 50	5 days	Yes
UGANDA	125,097	4,565,000	1969 FAO survey	18	15	3	32 to 100 average 25	36	5 days	Nil
TANZANIA	939,650	10,515,000	1969 FAO survey	60	15	4	14 to 80 average 40	26	5 days	Nil
ZAMBIA	752,650	3,780,000	1971 FAO survey	44	37	Not known	F.I's Av.50 F.T.C.Av.25	30	5 days	Nil
MALAWI	126,340	4,042,000	1969 FAO survey	19	21	Nil	F.I's Av.96 F.T.C.Av.28	32	Mainly 5	Nil
SWAZILAND	17,353	294,000	1971 FAO survey	4 (11-Sub-D)	3	Not known	2 of 30 1 of 40	17	Mainly 5	Yes
BOTSWANA	574,980	543,000	1971 FAO survey	10	3	2	3 of 60	44	5	Nil
LESOTHO	30,300	975,000	1972 FAO survey	9	4	1	2 of 40 2 of 20	36	Mainly 5	Yes
ETHIOPIA	1,183,630	22,590,000	1966 FAO survey	Not known	1	Nil	64	Not known	5	Nil
				TOTALS	133	16	-	-	-	-

Notes 1/ and 2/ - From Changing Map of Africa, British Information Service, 1967.

APPENDIX II

DETAILS OF TRAINING CENTRES OPERATING IN THE NINE COUNTRIES

Size: 457,000 sq. miles - 1,183,630 sq. kms.

Population: 22,590,000 (est. 1967)

Training Centres in ETHIOPIA at 31.12.73

Province	District	Name of Centre	Address and Telephone	Nearest Headquarters and Distance from Centre	Date of First Course	Total Beds
Wolamo	Wolamo	Wadu Training Centre	Box 3436 Wolamo, Sodo Tel: Sodo 60	Wadu, Wolamo 1.5 km.	22.2.1972	64

Note: Size and population figures for all countries taken from Changing Map of Africa, British Information Service, 1967.

Future Trends: At the Seminar on Agricultural Education for Rural Development in Ethiopia, held at Debre Zeit from 13 to 23 September 1972, the following recommendation was passed:

> "That there is a developing need for the establishment of residential farmer training offering short courses in such specialised subjects as coffee processing or dairy farming which dovetail with the plans of development agencies, but that there is no general call for such facilities at this time; that at the present stage of development, it is more necessary to extend to the majority of farmers an extension programme embracing advice, demonstrations, provision of inputs and credit, and non-residential training."

> "Where residential farmer training exists, great care should be taken, by regorous selection and by ensuring that land finance and inputs will be available to ensure that trainees on longer courses (over six months) actually return to farming and are a good example to their neighbours."

District Farm Institutes in UGANDA at 31.12.73

Size: 48,300 sq. miles - 125,097 sq. kms.

Population: 4,565,000 (est. 1967).

Province	District Farm Institutes	District(s) Served	Address of DFI and Telephone	DAO's Office Address and Distance from DFI	Date of First Course	Total Beds			
						Agric.	Coop.	C.D.	Total
EASTERN	Tororo	Bukedi	Box 37, Tororo Tel: Tororo 321	P.O. Box 90, Tororo 3 km.	23.4.61	48	20	30	98
	Bulegeni	Bugisu Sebei	Private Bag, Mbale Tel: Radio call Kampala 8141	P.O. Box 911, Mbale 42 km.	4.1.70	40	-	-	40
	Serere	N. Teso C. Teso S. Teso	P.O. Box 136, Soroti Tel: Soroti 14	P.O. Box 21, Soroti 29 km.	11.2.68	35	-	-	35
BUSOGA	Ikulwe	N. Busoga S. Busoga Jinja	Box 1092, Jinja Tel: nil	Box 67, Jinja 40 km.	6.60	50	-	-	50
N. BUGANDA	Mukono	Kyaggwe Bulemezi Mengo	Box 164, Mukono Tel: Mukono 232	Box 62, Bombo 63 km.	9.60	40	20	40	100
	Mityana	Mubende	Box 78, Mityana Tel: Mityana 69	Box 63, Mubende 81 km.	4.1.70	32	20	-	52
S. BUGANDA	Kamenyamigo	Buddu Kyotera Ssese	Box 34, Masaka Tel: nil	Box 30, Masaka 14.5 km.	13.7.63	32	-	-	32
SOUTHERN PROVINCE	Bushenyi	E. Ankole W. Ankole	Box 1061, Bushenyi Tel: Radio call Kampala 8135	Box 8, Mbarara 64.5 km.	17.8.63	30	30	-	60
	Kachwekano	S. Kigezi N. Kigezi	Box 6, Kabale Tel: nil	Box 6, Kabale 8 km.	9.1.66	32	20	-	52

District Farm Institutes in UGANDA at 31.12.73 (cont'd)

Province	District Farm Institutes	District(s) Served	Address of DFI and Telephone	DAO's Office Address and Distance from DFI	Date of First Course	Total Beds			
						Agric.	Coop.	C.D.	Total
WESTERN PROVINCE	Kyembogo	Toro Rwenzori Semuliki	Box 92, Fort Portal Tel: Fort Portal 2627	Box 17, Fort Portal 9.5 km.	25.7.60	32	20	20	72
	Bulindi	S. Bunyoro N. Bunyoro	Box 101, Hoima Tel: Radio call Kampala 8137	Box 3, Hoima 17.5 km.	15.2.70	32	-	-	32
NILE PROVINCE	Abi	C. Nile N. Nile S. Nile Madi	Box 219, Arua Tel: Arua 73	Box 4, Arua 9.5 km.	9.3.64	32	-	-	32
NORTHERN PROVINCE	Ngetta	W. Lango E. Lango	Box 52, Lira Tel: Lira 60	Box 20, Lira 6 km.	20.5.60	32	20	32	84
	Kitgum	E. Acholi W. Acholi	Box 179, Kitgum Tel: Kitgum 9	Box 8, Kitgum 1.5 km.	10.64	32	-	-	32
KARAMOJA PROVINCE	Nabuin	N.Karamoja C.Karamoja S.Karamoja	Box 47, Moroto Tel: Radio call Kampala 8138	Box 20, Moroto 11 km.	10.64	25	-	-	25
CENTRAL PROVINCE	Nil	Entebbe Kampala	n/a	n/a	n/a	-	-	-	-
10 PROVINCES - 15 DFIs		38 Districts	3 without telephones			524	150	122	796

Future Trends: Proposed District Farm Institutes / Proposed Bed Capacity

Region	District	Place	No.	Agric.	Coops.	R.T.C.	Total
Eastern	Sebei	Bukwa	1	64	-	-	64
Northern	Madi	Pakelle	1	64	32	32	128
Buganda	Mengo	Mpigi	1	64	32	32	128
				192	64	64	320

Farmer Training Centres in KENYA at 31.12.73

Size: 225,000 sq. miles - 841,750 sq. kms.
Population: 9,365,000 (est. 1967)

Province	District	Name of Centre	Address and Telephone	Nearest Headquarters and Distance from Centre	Date of First Course	Total Beds
WESTERN	Kakamega	Bukura FTC	Box 92, Bukura Tel: nil	Box 27, Kakamega 21 km.	1959	100
	Busia	Busia FTC	Box 28, Busia Tel: nil	Private Bag, Busia 1.5 km.	7.73	60
	Kakamega	Lugari FTC	Box 30, Turbo Tel: Turbo 6Y9	Box 27, Kakamega 56 km.	6.1.64	60
NYANZA	Central Nyanza	Maseno FTC	Box 25, Maseno Tel: Maseno 26	Box 1921, Kisumu 26 km.	1965	60
	South Nyanza	Homa Bay FTC	Box 71, Homa Bay Tel: H. Bay 32	Box 71, Homa Bay 1.5 km.	1966	90
	Kisii	Kisii FTC	Box 52, Kisii Tel: Kisii 44	Box 52, Kisii 1.5 km.	7.60	100
RIFT VALLEY	Kericho	Kabianga FTC	Box 29, Kericho Tel: KAB.29Y3	Box 50, Kericho 27 km.	1.59	70
	Nandi	Kaimosi FTC	P.O. Kaimosi	Box 60, Kapsabet 27 km.	7.57	40
	Moiben	Chebororwa FTC	Box 3033, Moiben Tel: Radio call Nairobi 1325	Box 3033, Moiben 81 km.	6.61	60
	Masai	Ngong FTC	Box 24914 Karen Tel: Nairobi 882574	Box 54, Kajiado 41 km.	10.65	40
	Masai	Isinya RTC	P.O. Box Kajiado Tel: nil	Box 54, Kajiado 21 km.	1962	30
	Narok	Narok FTC	Box 5, Narok tel: Narok 12	Box 5, Narok 8 km.	1969	30

Farmer Training Centres in KENYA at 31.12.73 (cont'd)

Province	District	Name of Centre	Address and Telephone	Nearest Headquarters and Distance from Centre	Date of First Course	Total Beds
RIFT VALLEY (cont'd)	Kericho	Bomet FTC	Box 3027, Bomet Tel: nil	Box 50, Kericho 96 km.	1968	20
EASTERN	Machakos	Machakos FTC	Box 27, Machakos Tel: Machakos 132	Box 27, Machakos 5 km.	4.8.61	80
	Kitui	Kitui BLI	Box 16, Kitui Tel: nil	Box 16, Kitui 1 km.	1.61	60
	Embu	Embu FTC	Box 6, Embu Tel: 15	Box 4, Embu 0.5 km.	1963	42
	Meru	Kaguru FTC	Box 12, Meru Tel: nil	Box 12, Meru 24 km.	16.2.61	86
	Meru	Kaaga RTC	Box 267, Meru Tel: Meru 3Y3	Box 12, Meru 5 km.	1.65	50
	Meru	Marimanti RTC	Box 218, Meru Tel: nil	Box 12, Meru 57 km.	6.63	20
CENTRAL	Nyeri	Wambugu FTC	Box 29, Nyeri Tel: Nyeri 71	Box 29, Nyeri 5 km.	7.7.57	106
	Kiambu	Waruhiu FTC	Box 222, Kiambu Tel: nil	Box 222, Kiambu 19 km.	11.58	48
	Muranga	Kenyatta FTC	Box 68, Muranga Tel: nil	Box 68, Muranga 45 km.	20.5.61	60
	Thika (Kiambu)	Salvation Army RTC	Box 274, Thika Tel: Mitubiri 4Y7	Box 222, Kiambu 34 km.	13.1.64	32
	Kirinyaga	Kianyaga FTC	Box 1, Kerugoya Tel: nil	Box 1, Kerugoya 1.5 km.	1.65	30
	Nyandarua	Njabini RTC	Box 15, S.Kinangop Tel: S.K. 3Y6	Box 70 Nyahururu 35 km.	18.5.64	40

Farmer Training Centres in KENYA at 31.12.73 (cont'd)

Province	District	Name of Centre	Address and Telephone	Nearest Headquarters and Distance from Centre	Date of First Course	Total Beds
CENTRAL (cont'd)	Nyandarua	Ol Joro Orok FTC	Box 3, Ol Joro Orok Tel: Nyahururu 6271	Box 70, Nyahururu 9 km.	15.10.63	60
COAST	Kilifi	Mtwapa FTC	Box 90290, Mombasa Tel: Shanzu 207	Box 19, Kilifi 23 km.	15.2.65	30
	Taita	Taita FTC	Box 1035, Wandanyi Tel: W. 45	Box 1035, Wandanyi 8 km.	9.72	60
NORTH EASTERN	Wajir	Griftu FTC	P.O. Box Wajir Tel: nil	P.O. Box Wajir 48 km.	1971	30
Twenty-nine Small-Scale Farmer Training Centres - Total Beds: 1,594						

Note: Besides the 29 centres listed above, there are also two centres for large-scale farmers and one special training centre (tea).

The training centres are operated by the following agencies (based on 1971 Annual Report): Ministry of Agriculture - 25; National Christian Council of Kenya - 5; Kenya Tea Development Authority - 1; Kipsigis County Council - 1.

Future Trends: The 1974/78 Development Plan states that further training centres will be built at Bungoma in Western Province; Baringo in Rift Valley Province; and Siaya in Nyanja Province, and a combined range centre at Laisamis in the northern part of Eastern Province. During the period of the development plan, improvements and modernisation will be carried out at the older existing farmer training centres. Construction will continue on the two new district development centres.

Rural Training Centres in TANZANIA at 31.12.73

Size: 362,800 sq. miles - 939,650 sq. kms.
Population: 10,515,000 (est. 1967)

Region	District	Name of Centre	Address and Telephone	District Office Coordinator and Distance from Centre	Date of First Course	Total Beds
KILIMANJARO	Kilimanjaro	Msinga RTC	Box 560, Moshi Tel: Kibosho 8	Box 99, Moshi 11 km.	12.12.62	28
	Kilimanjaro	Same RTC	P.O. Same Tel: nil	P.O. Same 10 km.	1970	80
IRINGA	Iringa	Iringa RTC	Box 254, Iringa Tel: Iringa 254	Box 290 Iringa 6 km.	25.5.63	50
WEST LAKE	Bukoba	Igabiro RTC	Box 15, Bukoba Tel: Bukoba 274	Box 25, Bukoba 38 km.	24.10.63	40
	Bukoba	Gera RTC	Box 299, Bukoba Tel: nil	Box 9, Bukoba 16 km.	1970	80
COAST	Kisarawe	Kibaha RTC	Box P.O. Kibaha Tel: Kibaha 218	Box 28025,Kisarawe 64 km.	20.6.64	64
TABORA	Tabora	Urambo RTC	Box 39, Urambo Tel: Urambo 4	Box 26, Tabora 87 km.	11.10.65	24
DODOMA	Dodoma	Hombolo RTC	Box 73, Dodoma Tel: nil	Box 73, Dodoma 40 km.	14.2.66	48
RUVUMA	Songea	Mlale RTC	Box 86, Songea Tel: nil	Box 6, Songea 56 km.	1.5.67	30
MARA	Musoma	Buhemba RTC	Box 160, Musoma Tel: nil	Box 4, Musoma 43 km.	15.1.68	48
MOROGORO	Kilosa	Kilosa RTC	Box 62, Kilosa Tel: nil	Box 62, Kilosa 10 km.	14.7.69	24
	Morogoro	Bigna RTC	P.O. Morogoro Tel: nil	Box 681, Morogoro 6 km.	1970	80

Rural Training Centres in TANZANIA at 31.12.73 (cont'd)

Region	District	Name of Centre	Address and Telephone	District Office Coordinator and Distance from Centre	Date of First Course	Total Beds
ARUSHA	Mbulu	Mbulu RTC	Box 35, Mbulu Tel: Mbulu 28	Box 62, Mbulu 5 km.	4.8.69	64
TANGA	Handeni	Handeni RTC	P.O. Handeni Tel: nil	P.O. Handeni -	1970	80
SHINYANGA	Shinyanga	Kisumbi RTC	Box 113, Shinyanga Tel: nil	Box 113, Shinyanga 10 km.	1970	80
Fifteen Rural Training Centres - Total Beds: 820						

Future Trends: Four new rural training centres are being built and will be ready in early 1975.

Region	RTC	Address	No. of Beds
Mwanza	Sengorema	P.O. Geita	Not stated
Dodoma	Munguri	Box 35, Kondoa	" "
Iringa	Ulembue	Box 7, Njombe	" "
West Lake	Ngara	P.O. Ngara	" "

Training Institutions in ZAMBIA at 31.12.73

Size: 290,587 sq. miles - 752,650 sq. kms.
Population: 3,780,000 (est. 1967)

Province	District	Name of Centre	Address and Telephone	Distance from District Office	Date Opened	Total Beds
CENTRAL	Kabwe	Keembe FI	Private Bag RW62 Lusaka Tel: nil	100 kms.	1965	56
	Lusaka	Chalimbana FTC	P. Bag El., Lusaka Tel: Lusaka 7272240	51.5 km.	1966	30
	Mkushi	Mkushi FTC	P.O. Box 3, Mkushi Tel: Mkushi 4	200 metres	1970	24
	Mumbwa	Mukulaikwa FTC	P.O. Box 613, Lusaka Tel: Lusaka 7373924	20 metres from sub-district office 64.5 km. from DAO Mumbwa Office	1967	54
	Serenje	Serenje FTC	P.O. Box 7, Serenje Tel: Serenje 4	100 metres	1966	30
COPPERBELT	Masaiti	Masaiti FI	P.O. Box 9, Luanshya Tel: Luanshya 2805-05	5 km. Masaiti Dis. Office, 27 km. Luanshya Dis.Office	1966	32
	Luanshya	Mpongwe FTC	P.O. Box 299, Luanshya Tel: nil	40 km.	1970	20
	Ndola	Mutaba FTC	c/o Box 232, Ndola Tel: nil	48 km.	1971	20
	Kalulushi	Mibenge FTC	Box 175, Kalulushi Tel: nil	29 km.	1971	20
EASTERN	Chipata	Katapola FI	Box 132, Chipata Tel: Chipata 452	6.5 km.	1961	60
	Chadiza	Chadiza FTC	Box 3, Chadiza Tel: Kasimuli 0112	1.5 km.	1968	28

Training Institutions in ZAMBIA at 31.12.73 (cont'd)

Province	District	Name of Centre	Address and Telephone	Distance from District Office	Date Opened	Total Beds
EASTERN (cont'd)	Katete	Katete FTC	Box 5, Katete Tel: Katete 17	5 km.	1969	28
	Lundazi	Lundazi FTC	Box 83, Lundazi Tel: nil	1.5 km.	1967	28
	Petauke	Petauke FTC	Box 73, Petauke Tel: Petauke 27	4 km.	1966	28
LUAPULA	Mansa	Mansa FI	Box 146, Mansa Tel: Mansa 338	1.5 km.	1969	32
	Kawambwa	Mbereshi FTC	Box 40, Kazembe Tel: nil	24 km.	1969	32
	Samfya	Samfya FTC	Box 21, Samfya Tel: nil	1.5 km.	1970	24
NORTHERN	Kasama	Mungwi FI	Box 46, Mungwi Tel: Kasama 202	27 km.	1963	64
	Isoka	Isoka FTC	Box 51, Isoka Tel: nil	3 km.	1969	20
	Mpika	Mpika FTC	Box 85, Mpika Tel: nil	8 km.	1969	20
	Mporokoso	Mporokoso FTC	Box 86, Mporokoso Tel: nil	8 km.	1968	32
NORTH WESTERN	Zambezi	Zambezi FI	Box 4, Zambezi Tel: nil	5 km.	1967	56
	Solwezi	Chafukuma FTC	Box 41, Solwezi Tel: nil	24 km.	1969	20
	Karbompo	Karbompo FTC	Dept. of Agric. P.O. Karbompo Tel: nil	3 km.	1969	20

Training Institutions in ZAMBIA at 31.12.73 (cont'd)

Province	District	Name of Centre	Address and Telephone	Distance from District Office	Date Opened	Total Beds
NORTH WESTERN (cont'd)	Kasempa	Kasempa FTC	Box 41, Kasempa Tel: nil	11 km.	1968	20
	Mwinilunga	Mwinilunga FTC	Box 13, Mwinilunga Tel: nil	9 km.	1968	20
SOUTHERN	Choma	Kanchomba FI	Box 37, Pemba Tel: Pemba 0131	17 km. sub-District HQ; 79 km. prov.HQ	1964	80
	Kalomo	Kalomo FTC	Box 128, Kalomo Tel: Kalomo 28122	9 km.	1966	24
	Gwembe	Mulima FTC	P.O. Sinazeze Via Choma Tel: nil	17 km. sub.District HQ; 201 km. District HQ.	1970	24
	Monze	Monze FTC	Box 19, Monze Tel: Monze 2732	8 km.	1968	48
	Namwala	Namwala FTC	Box 30, Namwala Tel: nil	3 km.	1968	25
WESTERN	Mongu	Namushakende FI	Box 46, Namushakende Tel: nil	34 km.	1962	50
	Kaoma	Kaoma FTC	Box 7, Kaoma Tel: nil	1.5 km.	1967	40
	Senanga	Nangweshi FTC	Box 43, Senanga Tel: nil	59.5 km.	1967	24
	Sesheke	Sesheke FTC	Box 9, Sesheke Tel: nil	6 km.	1971	24

Eight Farm Institutes and twenty-seven Farmer Training Centres - Total Beds: 1,157

Training Institutions in ZAMBIA at 31.12.73 (cont'd)

	District	Name of Centre	Address and Telephone	Distance from Headquarters	Date Opened	Total Beds
CENTRALISED TRAINING CENTRES	Lusaka	Palabana Agricultural Training Centre	Box RW.99 Lusaka Tel: Lusaka 719115	34 km.	1967	72
	Lusaka	Mt. Makulu Mechanisation Training Unit	Box 7, Chilanga Tel: Chilanga 312	17 km.	1965	20

Note: Zambia has the largest programme of residential centres and these are at two levels; each of the eight provinces has a provincial farm institute. These are used mainly for in-service training of staff and some pre-service training of junior staff, and they also undertake farmer training for the area or districts near to the Institute.

Future Trends: As will be seen from the above table, Zambia has a good cover of training centres and the future policy is to be directed toward general improvement and increasing the efficiency of the existing centres, with special reference to transport, staff and staff housing.

Divisional Training Centres in MALAWI at 31.12.73

Size: 48,779 sq. miles - 126,340 sq. kms.
Population: 4,042,000 (est. in 1967)

Region	District	Name of Centre	Address and Telephone	Divisional HQ and distance from Centre	Date Opened	Total Beds
SOUTHERN	Mulanje	Tuchila FI	Postal Agency Tuchila Tel: T.232	Box 49, Mulanje 79 km.	7.66	96
	Blantyre	Lunzu DTC	Box 22, Blantyre Tel: B.00733	Box 32, Blantyre 16 km.	1.7.66	35
	Chikwawa	Ngabu DTC	Box 32, Blantyre Tel: N.11	Chikwawa Cotton Project 300 metres	7.67	48
	Zomba	Zomba DTC	Box 287, Zomba Tel: Z.287	Box 287, Zomba 100 metres	15.2.65	40
	Zomba	Namambo DTC	Box 215, Zomba Tel: nil	Chinese Rice Project, Zomba	1.66	34
CENTRAL	Salima	Chitala FI	Box 6, Salima Tel: S.01221	Box 6, Salima 48 km.	6.71	48
	Ncheu	Ncheu DTC	Box Ncheu Tel: N.03004	Box 19, Ncheu 1 km.	4.2.69	30
	Lilongwe	Natheje DTC	P.H. Natheje P.O. Lilongwe Tel: N.9	Box 97, Lilongwe 39 km.	3.5.71	40
	Lilongwe	Nsaru DTC	Box 259 Lilongwe Tel: nil	Box 97, Lilongwe	19.4.67	40
	Lilongwe	Lilongwe Land Dev. Project DTC	Box 92, Lilongwe Tel: L.2330	Box 92, Lilongwe 4 km.	5.69	28
	Mponela	Mponela DTC	Box 92, Lilongwe Tel: MP.19	Box 11, Dowa 40 km.	2.4.68	40
	Kasungu	Lisasadzi FTC	Box 17, Kasungu Tel: K.1231	Box 17, Kasungu 27 km.	23.2.67	30

Divisional Training Centres in MALAWI at 31.12.73 (cont'd)

Region	District	Name of Centre	Address and Telephone	Divisional HQ and Distance from Centre	Date Opened	Total Beds
NORTHERN (cont'd)	Msimba	N'Mbelwa FI	P.O.Box Mount Hora PO. Mzimba Tel: nil	Box 11, Msimba	7.63	96
	Msimba	Mbawa DTC	Box 13, Mzuzu Tel: nil	Box 11, Mzimba 52 km.	1965	40
	Rumpi	Bolero DTC	P.O. Rumpi Tel: nil	Box 19, Rumpi 11 km.	17.10.66	22
	Rumpi	Kacheche DTC	Box 19, Rumpi Tel: R.512	Box 19, Rumpi 11 km.	1967	18
	Rumpi	Nchenachena DTC	P.A. Nchenachena PO Rompi Tel: nil	Box 19, Rumpi 45 km.	2.66	24
	Nkata-Bay	Mzuzu DTC	Box 13, Mzuzu Tel: nil	Box 10, Nkata-Bay 52 km.	3.11.67	20
	Nkata-Bay	Chinteche DTC	P.O. Chinteche Tel: nil	Box 10, Nkata-Bay 47 km.	3.7.69	24
	Chitipa	Misuku DTC	Box 13, Mzuzu Tel: nil	Box 10, Nkata-Bay 52 km.	11.10.65	24
	Karonga	Baka DTC	Box 43, Karonga Tel: K.26	Box 43, Karonga 1.5 km.	1966	24
Three Farm Institutes and eighteen Divisional Training Centres - Total Beds: 801						

Note: Malawi also has a large programme of 47 non-residential day training centres. These hold set courses and local participants attend for a few hours a day, making their own way to and from the centres.

Future Trends: Malawi, like a number of other countries, is more concerned with the up-grading and improvement of the existing centres than in building new divisional training centres. However, when justified, rural day centres can be developed into residential divisional training centres. (In May 1974, Naminjiwa Day Centre was converted into a divisional training centre).

Farmer Training Centres in SWAZILAND at 31.12.73

Size: 6,700 sq. miles - 17,353 sq. kms.

Population: 294,300 (est. 1967)

Administrative District	Name of Centre	Address and Telephone	District Headquarters	Distance from Centre	Date Opened	Total Beds
HHOHHO	Luthern FTC	Private Bag Pigg's Peak Tel: 6303	Pigg's Peak	32 km.	19.8.68	40
MANZINI	Veterinary and Stock FTC	Box 163, Manzini Tel: 6202	Mansini	27 km.	1.73	40
SHISELWENI	Nhlangano FTC	Box 14, Nhlangano Tel: 48	Nhlangano	0.31 km.	5.8.70	28

Future Trends: At the national seminar on the Training of Rural Families in Swaziland, in Man 1971, a recommendation was passed as follows:

> "That in view of the concern shown over the take-over of the Luyengo Short-Course Centre by the University, this Seminar strongly recommends that Mansini and Lubombo districts be provided with their own farmer training facilities."

The Short-Course Centre in Mansini District was the first FTC in Swaziland and was built on the campus of the Agricultural College and University Centre, but was swallowed by University expansion.

Farmer Training Centres in LESOTHO at 31.12.73

Size: 11,700 sq. miles - 30,300 sq. kms.

Population: 975,000 (est. 1967)

District	Name of Centre	Address and Telephone	District Headquarters	Distance from Centre	Date Opened	Total Beds
NORTH LERIBE	Leribe FTC	Box 139, Leribe Tel: L.26	Box 139, Leribe	1.5 km.	23.9.64	40
SOUTH MOHALE'S HOEK	Mohale's Hoek FTC	Box 58, Mohale's Hoek Tel: MH.249	Box 58, Mohale's Hoek	3 km.	17.4.67	40
MOUNTAIN	Qacha's Nek FTC	Box 9, Qacha's Nek Tel: nil	Box 9, Qacha's Nek	1 km.	27.4.69	20
CENTRAL	Matela FTC	Box 75, Maseru Tel: nil	Box 75, Maseru	37 km.	17.5.70	40

Note: Apart from the farmer training centres, there are also livestock and nutrition centres, some of which hold short residential courses. There is also a sheep stud at Quthing.

Future Trends: Another centre has been built at Mokhotlong in the Mountain district.

Rural Training Centres in BOTSWANA at 31.12.74

Size: 222,000 sq. miles - 574,980 sq. kms.

Population: 543,000 (est. 1967)

Region	District	Name of Centre	Address and Telephone	Regional Headquarters and Distance from Centre	Date Opened	Total Beds
GABORONE	Sebele	Denman RTC	Box 328, Gaborone Tel: GAB.2305/6	10 km.	9.68	80
CENTRAL	Mahalapye	Mahalapye RTC	Box 300, Mahalapye Tel: MAH.3	Box 300, Mahalapye Adjoining	4.69	60
NGAMILAND	Maun	Ngamiland RTC	Box 149, Maun Tel: Maun 149	Box 149, Maun 24 km.	5.74	30

Note: There are five short-course range centres operated by the Animal Production Division of the Ministry of Agriculture. These ranches were established with OXFAM funds and they are being developed with funds collected as grazing fees on the ranches.

Future Trends: Two more residential farmer training centres are planned at Francistown,and Kanye and further development in the number and facilities of the animal production short-course centres.

APPENDIX III

DEVELOPMENT OF RESIDENTIAL TRAINING CENTRES BY YEAR

Date of First Course	Centres Built	Total all Countries	Notes
1957	2	2	Kenya started
1958	1	3	
1959	2	5	
1960	5	10	Uganda "
1961	7	17	Zambia "
1962	3	20	Tanzania "
1963	9	29	Malawi "
1964	8	37	Lesotho "
1965	11	48	
1966	15	63	Swaziland
1967	13	76	
1968	13	89	Botswana "
1969	15	104	
1970	14	118	
1971	6	124	
1972	2	126	Ethiopia "
1973	3	129	
1974	1	130	
No details available for first courses in Kenya of two Large-Scale Farmer Training Centres and one Tea Centre		3	
	Total all countries:	133	

TOTAL TRAINING CENTRES BY COUNTRY

Country	Operating	In Construction	Beds
Ethiopia	1		64
Uganda	15	3	796
Kenya (32 + 2 rebuilding)	34	6	1,594
Tanzania	15	4	820
Zambia	37		1,157
Malawi	21		801
Swaziland	3		108
Lesotho	4	1	140
Botswana	3	2	170
	133	16	5,650

APPENDIX IV

CHECK LIST OF EQUIPMENT FOR FARMER TRAINING CENTRE FOR 60 STUDENTS

PRINCIPAL'S OFFICE

1 Desk, office, 6-drawer
1 Chair with arms
2 Chairs without arms
1 Bookcase, glass front
1 Wall safe
1 File cabinet, steel
1 Cupboard, wooden
1 Table, plain, 2-drawer
1 Clock
Sundries

VICE-PRINCIPAL'S OFFICE

1 Table, 2-drawer
1 Chair with arms
1 File cabinet, wooden
4 Door mats
Sundries

CLERK'S OFFICE

2 Tables, 2-drawer
2 Chairs without arms
1 File cabinet, wooden
1 Gestetner duplicator
1 Bicycle with carrier
1 Typewriter, 46cm.
2 Dustbins

STAFF ROOM

2 Tables, 2-drawer
4 Chairs without arms
6 Chairs, lounge
1 Floor mat, sisal
Curtains
Sundries

CLASSROOM

60 Chairs, single
20 Tables
2 Classroom cupboards
2 Tables, 2-drawer
4 Chairs without arms
2 Dustbins

VISUAL AID EQUIPMENT

1 Sound projector, 16mm. with microphone
1 Rewinder
1 Splicer
1 Slide projector Kokak Carousel
1 Screen, portable
10 Slide drums, Carousel
1 Transistor radio
1 Television set, complete

DORMITORIES (2 x 30 beds)

60 Beds, single, 76cm. x 2m.
60 Mattresses, foam, 10cm. (covered)
60 Lockers, bedside
180 Blankets
240 Sheets
60 Pillows
120 Pillow slips
6 Irons, charcoal
6 Buckets
6 Dustbins
6 Door mats
60 Mosquito nets
Sundries

DINING HALL

8 Tables to seat 8 (formica tops)
65 Chairs, stacking
1 Clock
Sundries

KITCHEN

1 Table, office, 2-drawer
1 Chair, without arms
1 Water heater, Afrigas
1 Cooker, 6-ring burner
1 Wall clock
4 Stools, cooks
6 Buckets
4 Dustbins
100 Forks, dinner
100 Spoons, dessert

KITCHEN (cont'd)

100 Knives, stainless steel
12 Water jugs, enamel
4 Knives, kitchen
6 Ladles, heavy duty
1 Meat cleaver
1 Meat saw
1 Potato peeler
100 Mugs, "Mealaware" type
36 Cups and Sauchers (matching)
100 Plates, dinner
100 Plates, soup
6 Padlocks
1 Counter scale
1 Platform scale
2 Saucepans, medium with lids
4 Salt sets
1 Refrigerator, gas/electric
12 Cooking pots, Sufuria, 30cm.
12 Cooking pots, Sufuria, 46cm.
6 Food scoops
1 Tea urn, 10-gallon
2 Bread knives
4 Meat hooks, s/steel
10 Teapots, large
2 Tin openers
1 Pint/liter measure
100 Tea spoons
Sundries

COMMON ROOM

4 Tables, large
50 Chairs, stacking
20 Arm-chairs
10 Tables, occasional
Sundries (curtains, mats, etc.)

GROUNDS (FTC)

1 Hayter Mower, 60 cm.
1 Mower, manual
3 Water cans x 2 gallons
63m. of 36mm plastic hose
2 Wheel-barrows
Handtools

TRANSPORT

1 Bus, 37-seater
1 Morris Pick-up

APPENDIX V

RESPONSIBILITIES OF A PRINCIPAL

Paper Presented by C.W. Barwell to a FAO Training Centre for Farmer Training Institutions in East Africa Held at Kabete, Nairobi, Kenya

As I said to you in my welcome talk, the whole theme of this Training Centre is based on the responsibilities of a Principal. We wish to try and decide what these responsibilities are and who the Principal has to assist him with these responsibilities. In his turn, the Principal will be responsible to some person, or persons, outside his institution. In many cases, the Principal and his staff will be running a training institution in cooperation with, and on behalf of, the district extension service. In other situations, the Principal may have direct responsibility to a provinical or regional organisation, or a board of governors. In some cases, the Principlas are in the difficult position of being responsible to more than one person or organisation. We will be examining this situation later in the programme. All that I would like to say now is that whoever the Principal is responsible to outside the institution, there must be a very real and live liaison and association between the two.

We can now turn our attention to the responsibilities of the Principal within his institute. However, before we do this I would like to suggest that a good Principal should, at all times, be guided by the overall objective of sending away satisfied students, and much of the success of the institute will depend on its ability to do this. Unless you can send these people away satisfied, you will have endless recruiting troubles. They expect to be warmly greeted, fed well and taught well. They expect to have an opportunity to express their opinions as experienced farmers, and they always feel well rewarded if they can go on at least one visit. The success of your institute depends as much on the satisfied student as on high pressure recruiting methods by the field staff. If ever I hear of an institute having poor attendance, I first look at the institute and try to assess if it is sending away satisfied students. It is for this reason, as much as any other, that a very real and lively lisison and cooperation is essential at all times between the institute and field staff. Each must have confidence in the other, and confidence can only be built up by contact. It is of the greatest importance that field staff pay regular and detailed visits to the FTC and take part in a constructive evaluation of the teaching and farming methods.

But to return to the duties of the Principal. With the aim of satisfied students in mind, the Principal then has to organise his staff and his centre to carry out this aim. A Principal must never be satisfied; he should lay down standards and devise a system to make sure that these standards are maintained, and, if possible, by critical evaluation, actually improved. He must maintain a very close personal and lively interest in the students. He should greet them personally, no matter at what time they arrive. In fact, if they arrive late, or wet, or cold and dustry, then it is all the more important that he greets them in person. He should give the opening address, even if through an interpreter. He should maintain contact and look in at classes and meals, and give them a good send off at the end of the course. He may have to exercise great patience and listen to many rather imaginary complaints, but the important thing is to be there, to listen to them, and to give them either an explanation or an assurance. If you are sending away contented students - and you must to succeed - then you must also cash in on them and ask for their assistance. They like this and are usually only too willing to assist in passing on a good word for the institute. In some cases it may pay off to give them handouts to pass on to friends and neighbours. Tell them that they can do another course free of charge, if they return as the leader of a group of six or more neighbours, or ask them to recruit wives' courses.

Now the Principal is, ultimately, responsible for everything that goes on at the institute. It is a very full 24-hours-a-day job and he requires good organisation and the maximum cooperation from all his staff to be able to carry it out properly. His main job should be to organise, supervise and encourage the staff in the maintenance of set standards. While he should always be available to give decisions and advice, he should not become too deeply involved himself. Within reason he should, by slight adjustment of duties, be able to leave the centre at very short notice. His responsibilities can be subdivided into two main functions, i.e.

a) The teaching side and student welfare

b) The farming operations

Both these two main divisions can again be broken down into a large number of individual responsibilities. Let us examine his detailed responsibilities on the teaching side. These can be listed as follows (and you may suggest others):

Teaching Side

1) Organisation of courses and liaison with the DAO (or settlement) and district over the recruiting of courses.
2) Preparation of syllabus, timetable, teaching responsibilities, visiting lecturers, tours, visits, demonstrations, visual aids, etc.
3) Direction and supervision of the staff and students and their welfare.
4) Office administration, financial planning, accounting, collection of revenue, payment of wages, correspondence, filing, reports, etc.
5) Cleanliness, repair and maintenance of all buildings and equipment, including roads, drains, sewers, grounds, etc.
6) Satisfactory operation and maintenance of all transport, light and water plants, engines, mowers, kitchen stoves, office equipment and visual aids.
7) Meeting and conducting visitors, senior officers, visiting lecturers, organising and assisting with field days, open days and visits by clubs and schools, etc.
8) Accepting, checking and accounting for all stores and equipment, and keeping them in good order.
9) Maintaining a good standard of diet and arranging for all rations, both purchased and home grown.
10) Planning and supervising the teaching, demonstrations and visual aids.
11) Acting as overall supervisor and director, and knowing what is going on at all times.

On top of this, he has his farming operations which can be listed as follows:

1) Maintaining a sound farming system, backed up by a well-prepared and practical farm plan for the economic production of crop and stock products, and the maintenance of fertility.
2) Keeping all classes of livestock in a healthy and productive condition.
3) Making sure that all machinery, stores and equipment, are in good order with sufficient fuel, oil, spare parts, tyres, etc. to cater for emergencies.
4) Planning ahead and ordering seeds, fertilisers, sprays, dips, weed killers; arranging for their delivery and safe storage.

5) Organising and supervising the housing and welfare of the farm staff.

6) Maintaining and keeping in good order all buildings, roads, drains, grounds, tree plantations, water supplies, dips, etc.

7) Accounting for all expenditure and revenue, payment of wages, ordering stores, correspondence, store keeping, records of crops and stock, and rainfall, etc.

It will be seen from the above that a Principal has many and varied responsibilities. He cannot possibly do all this himself and he has got to decentralise his work. However, he is still fully responsible if his staff let him down and,in view of this, he must build up a loyal and efficient staff to assist him. His organisation and decentralisation should be carried out in an orderly manner and the decentralisation of duties and responsibilities should be recorded and in some cases signed for.

Naturally, he will have to carry out many of these duties himself. Such matters as planning, finance, ordering, meeting senior staff, etc., must be carried out by the Principal. However, he should have a second in command who should be able to take over his duties at short notice. He should also be able to stand in for the second in command when he is absent. The division of duties between a Principal and his Vice Principal is best arranged according to the individual capabilities of the officers concerned. However, when the division of responsibilities is decided on, they should be recorded.

The Principal now has to divide the remainder of his responsibilities amongst the rest of the staff. In the first place the staff should be made to realise that they will have to accept these additional responsibilities over and above their normal duties. A Principal will have office staff, teaching staff (male and female), kitchen staff and farm staff.

The senior office staff member will have to accept the responsibilities for all office stores and equipment and sign for them, other than items on direct charge to the Principal, such as cameras, etc. He should have a set routine of dates on which reports are required, and should be responsible for maintenance of office supplies, office keys, duties of night guard, duties of messenger, etc.

Teaching Staff: Apart from their teaching periods, the teaching staff will have to be responsible for all the school buildings, equipment and stores. The buildings and equipment are divided up into stores inventories, and each member of staff takes over a portion of the centre buildings and signs for the items listed.

Over and above this, and their teaching duties, the members of the teaching staff should make themselves responsible for the maintenance, upkeep and working order of various demonstrations and displays, and each demonstration should have its own record book to be kept up to date; this policy will also apply to female staff.

The attached veterinary staff, or any other attached staff, may also have to play their part in this division of responsibilities.

Duty Teacher: At some institutes they operate a system of a weekly duty staff member. The basis is that one member of staff is on duty for a week, on a written list of duties, and is responsible for all matters of daily routine on behalf of the Principal. Among the duties are such functions as supervising the starting and stopping of the light plant and the completion of the log book, acting as a buffer between the students and the Principal on all matters. At the end of his duty, he hands over the keys and reports to the Principal, who hands over to the new staff member. At the end of his duty, he usually has a long weekend to go home.

Kitchen Staff: Either the cateress, or member of the home economics staff, or in some cases the head cook, have to take over all the kitchen and hall equipment and stores. A system of reporting losses and breakages should be organised. The daily issue of rations and the day-to-day accounting should be the written responsibility of the cateress or a responsible staff member. The accounting for such items as empty containers should be properly organised.

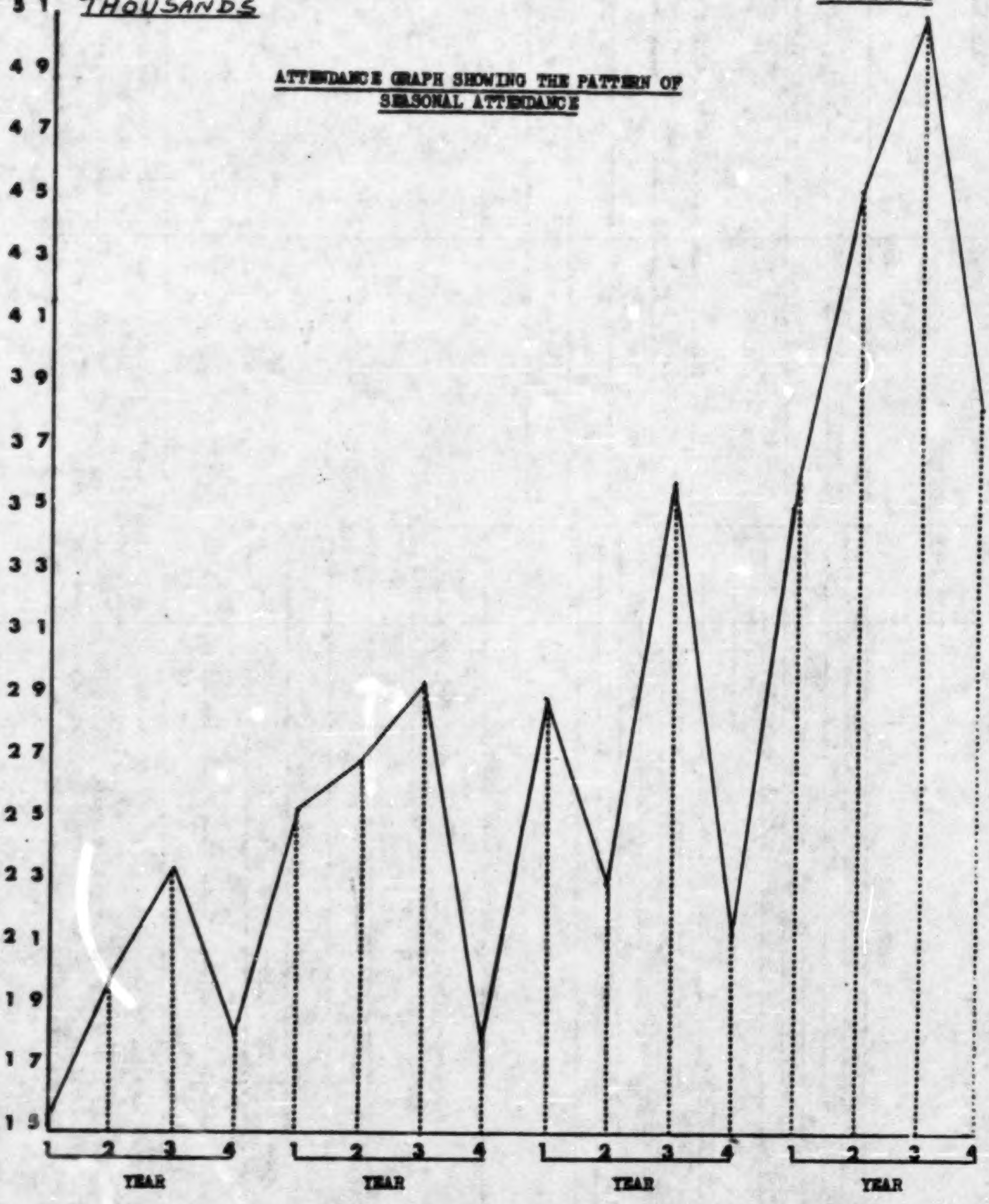
Sweeper and Ground Staff: These staff members should have their duties explained in detail and they should understand their responsibility for reporting breakages and losses.

The Farm: While the Principal will have to do much of the planning, ordering, etc., he should be able to spread his responsibilities to senior members of staff working on the farm.

It is only by working on these lines that the Principal can obtain the necessary freedom of action to carry out his own particular duties and have time to both supervise and assist the rest of the staff. As said earlier, this essential decentralisation requires the full support of a loyal staff.

Frequent meetings should be held with the staff, and the Principal should inspect all projects at regular intervals. The staff should feel fully involved in the whole operation of the institute; this spirit of cooperation should be carried down to the lowest paid labourer to obtain successful operation of the institute.

APPENDIX VI



ATTENDANCE GRAPH SHOWING THE PATTERN OF SEASONAL ATTENDANCE

KENYA - Total Student Days at All Centres by Quarters

APPENDIX VII

EXAMPLE

SUGGESTED ATTENDANCE REGISTER

LEFT HAND PAGE

COURSE NO: 1/71 From 4/4 to 9/4	TOTAL DAYS 5
SUBJECT OF COURSE	Vegetable Growing
RECRUITED FROM	Manga Division
RECRUITED BY	Agriculture
WHO ATTENDED	Members - Manga Vegetable Society
POSSIBLE ATTENDANCE	30
ACTUAL ATTENDANCE	15
PLUS OR MINUS POSSIBLE ATTENDANCE	- 15
PERCENTAGE OF ATTENDANCE	50%
TOTAL STUDENT DAYS	75
BRIEF REASON FOR COURSE FAILURE	

RUNNING TOTALS OF ATTENDANCE

	Men	Women	Youth	Staff	TOTALS Actual	TOTALS Possible	Total Courses	Total Student Days
Total from 1st Jan.	200	50	75	11	336	420	14	845
Total this course	12	2	-	1	15	30	1	75
Total from 1st Jan.	212	52	75	12	351	450	15	920
Total from 1st course	1420	832	320	92	2664	2973	147	11210
Total this course	12	2	-	1	15	30	1	75
Total from 1st course	1432	834	320	93	2679	3003	148	11285

RIGHT HAND PAGE

EXTENSION STAFF WITH COURSE _ _ _ Mr. P. Sanjo _ _ _ _

COURSE LEADER _ _ _ _ _ _ _ _ _ _ _ Mr. F.P. Franjo _ _

PARTICIPANTS

No.	Name	Address or Where From
1.	Mr. F.P. Franjo	c/o Manga Vegetable Society
2.	Mr. J. Muloti	" " "
3.	Mr. P. Wanko	" " "
4.	Mr. L. Lutty	" " "

Etc.

Student registers should be kept in large, stiff-covered, foolscap-size books rather than files. If files are used, they are put away when full and can easily be lost or mislaid. The book used as a register should be clearly labelled on the cover with the name of the centre and the period covered. It is the main permanent record of the centre with complete records of all courses and should be kept by the Principal, and should not leave his office. Closed registers should also be kept as permanent records of the performance of the centre. In many centres, the registers are not kept by the Principals and many of them are worthless as a permanent record.

As will be seen from the example on the previous page, at least two pages are required for each course. The left-hand page gives all the essential information about the course; the right-hand one gives details of the participants attending. The list of participants may exceed the usual 36 lines of a foolscap page, in which an extra page will be required. Many centres may use only one page, but the left-hand page should always be kept for the course details.

The course details are self-explanatory, but the following points should be noted:

Course Number: This is taken from the course programme and, in the event of a course failure or cancellation, the page should be completed. However, if an alternative course can be assembled, then it should carry a separate number, i.e. 1/71/EXTRA, but the reasons for the failure of the planned course should be recorded.

Particulars of Course: The particulars should be well kept so as to provide information for any subsequent follow up.

Attendance and Evaluation: The Principal and his staff, together with the extension staff, have a constant challenge to keep every possible bed occupied at all times. The attendance is decided by the total beds available for that particular course. It may be a 30-bed centre and all 30 beds available. The centre may be operating two courses at the same time, each of 15 persons, in which case two pages of register are used and numbered 1/71/A and 1/71/B so as to account for all the available beds. The evaluation of each course by the percentage of attendance presents the Principal with a constant and up-to-date evaluation of their successes and failures.

Running Totals: Once the starting totals have been established, it is a simple routine procedure on the part of the Principal to add the new totals for each course. It is useful and impressive if, by simply opening the register, the latest up-to-date information is immediately available for the year, and since the centre opened. This type of register makes the preparation of accurate returns fast and easy.

Reasons for Course Failures: The only satisfactory method of gradually eliminating course failures is to keep constant and detailed information. A separate report should be prepared so that action can be taken. The following is an example of a course cancellation report from one country. Prompt action can be taken as soon as a trend of the reasons for failure is apparent. Course failures should never be ignored or concealed.

Analysis of 81 Course Failures in One Country in 1972

Number of Failures	Reason	Centres Involved	Action by Extension Training Officer
23	No transport	3	Closed pending transport
19	Failure to recruit	4	DAO asked to report
10	No water	1	Request for technical report
9	No funds	5	Enquiry into allocations
6	Clash of dates	2	Report from planning committee
2	Refusal by farmers to attend	1	DAO asked to report
1	Lack of equipment	1	Report requested
11	No reasons given	4	Reports requested from Principals
81		21	

APPENDIX VIII

DEPARTMENT OF AGRICULTURE - ZAMBIA - TRAINING RECORD SHEET (TO ACCOMPANY MONTHLY REPORT)

PROVINCE .... NAME OF F.I. OR F.T.C. .... MONTH .... 19.......

Course Number	DATE		TITLE OF COURSE	PLANNED PROGRAMME OF COURSES				ACTUAL PROGRAMME OF COURSES				ATTENDANCE DETAILS							
	FROM	TO		Courses Planned	Training Days	Proposed Intake	Student days	Courses held	Training days	Actual Intake	Actual Student days	T/O'S	T/A	A/A'S	C/D	Farmers (Male)	Farmers (Female)	T.F.C.	Others
TOTAL FOR MONTH																			
BROUGHT FORWARD																			
TOTAL TO DATE																			

See Note overleaf Signature................................ Designation....................................

Name in Block Capitals............................ Date ....

Monthly or Quarterly Return

This return gives details of the planned courses together with the actual courses operated. This information is readily available from the programme of courses and the attendance register. This return also gives columns for a breakdown of the various types of participant. On the reverse of the form, space is provided for details of any cancelled or failed courses. Full details should be given of the reasons for failure.

(Reverse of Form)

1. This form is to accompany Monthly Reports.
2. Give details of training carried out at the Farm Institute or Farmer Training Centre, including any Training Courses that Institutional Training Staff carried out in the field. Give place name of the Field Course in brackets, under Title of Course column.
3. Do not record Conferences or Meetings.
4. All Courses for the year should be consecutively numbered and if cancelled reason for cancellation should be given below.
5. Avoid duplication of any Course.

	COURSE NO.	TITLE OF COURSE	REASON FOR CANCELLATION

APPENDIX IX

PERCENTAGE UTILIZATION OF TRAINING CAPACITY OF TRAINING CENTRES IN ZAMBIA 1970 BY PROVINCES LISTED IN ORDER OF PERFORMANCE

	STUDENT INTAKE			DETAILS OF STUDENT INTAKE								
PROVINCE	PLANNED	ACTUAL	SHORTFALL	TRAINING %	TRAINED STAFF	COMMODITY DEMON-STRATORS	FARMERS		YOUTH CLUBS		OTHERS	TOTAL
							MALE	FEMALE	LEADERS	MEMBERS		
Southern	6,799	4,712	2,087	69	277	389	2,202	745	153	240	706	4,712
Copperbelt	1,558	1,044	514	67	46	55	552	142	9	117	123	1,044
Eastern	6,177	3,731	2,446	60	417	331	1,573	601	28	596	185	3,731
Central	6,186	3,616	2,570	50	117	310	1,757	1,224	12	52	144	3,616
Luapula	1,874	868	1,006	46	68	49	385	152	57	111	46	868
Northern	3,760	1,435	2,325	38	57	151	474	411	43	109	190	1,435
N. Western	3,740	1,009	2,731	27	47	126	557	171	2	75	31	1,009
Western	1,722	442	1,280	25	133	34	80	49	59	51	36	442
TOTALS	31,816	16,857	14,959	53	1,162	1,445	7,580	3,495	363	1,351	1,461	16,857

Annual Returns of Percentage of Utilization

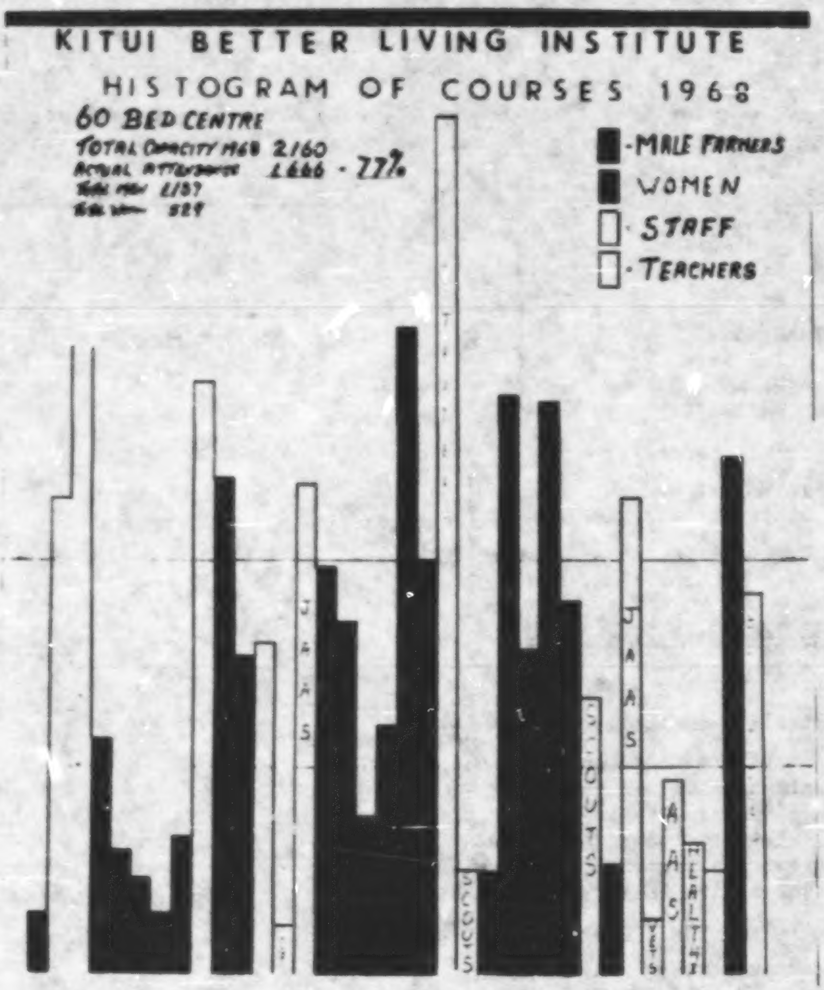
This type of return can be prepared at both regional and district levels. At regional and ministerial levels, it has more impact if the centres are listed according to the percentage of utilization of planned courses.

Student Days

It will be noted that the return does not quote student days. The percentage of utilisation gives a much clearer picture of performance than astronomical numbers of student days. There can also be a wide variety of definitions as to the actual meaning of a "student day". It is usually taken to mean one night and all, or part of a day at the centre. However, in some countries, both day of arrival and day of departure are counted as a student day. In other countries, attendance for 2-3 hours at non-residential day centres are also counted as student days.

APPENDIX X

ATTENDANCE HISTOGRAM



Points on the Preparation of a Histogram:

1. It should be an accurate pictorial record of the actual attendance at all courses compared to the total bed capacity of the training centre.
2. It should illustrate clearly the total utilisation of the training centre over the whole year. Course failures should be recorded, as should any closure of the centre for staff leave, follow-up or any other reason.
3. The total bed capacity of the centre is indicated by the 100 percentage line and the columns indicate the actual attendance at each individual course.
4. By the use of colours or shading, the columns can be made to show the type of person attending, i.e. farmers, wives, leaders, etc.
5. A histogram such as this is much easier to understand than the total student days operated by the centre. Any interested person can, at a glance, see the actual performance of the centre.
6. This type of histogram should be prominently displayed at the centre.

APPENDIX XI

TERMINOLOGY AND ABBREVIATIONS USED

TERMINOLOGY

In the nine countries of the sub-Region there is a fairly wide variation in the terms used. In order to avoid confusion some of the major differences are given below.

Terms used in countries	Terms used in this publication
Province used in Ethiopia Kenya Zambia	Region
Region used in Uganda Tanzania Malawi Botswana	
Districts used in all countries	Districts
Divisions used in Malawi at District level	
Divisions as a Sub-Division of a District used in most countries.	

NAMES OF RESIDENTIAL TRAINING CENTRES

Ethiopia	Farmer Training Centres	Training Centres (or Centres)
Uganda	District Farm Institutes	
Kenya	Farmers' Training Centres Rural Training Centres Range Training Centres District Development Centres Large-Scale Farmer Training Centres Better Living Institute (with Ministry of Health)	
Tanzania	Rural Training Centres	
Zambia	Farm Institutes (Provincial) Farmer Training Centres	
Malawi	Farm Institutes (Regions) Division Training Centres (Districts)	
Swaziland	Short Course Centre (National) Farmer Training Centres	
Botswana	Rural Training Centres Short Course Centres (Animal Production Division)	
Lesotho	Farmer Training Centres Sheep Studs (Residential)	

NON RESIDENTIAL DAY TRAINING CENTRES

		Terms used in this publication
Malawi	Has up to 50 Non-Residential Day Rural Training Centres	Day Centres
Lesotho	Rural Nutrition Day Centres	

PRINCIPALS - OFFICERS IN CHARGE - RESIDENT OFFICERS

	Terms used in this publication
All the above terms are used but Principal is the most general.	Principal

MINISTRIES CONCERNED IN FARMER TRAINING

		Terms used in this publication
Ministry of Agriculture	Ethiopia Kenya Tanzania Lesotho Swaziland Botswana	The Ministry
Ministry of Agriculture & Forestry	Uganda	
Ministry of Agriculture and Natural Resources	Malawi	
Ministry of Rural Development	Zambia	

FARMERS

In this publication "Farmers" refers to male or female adults who are owners or occupiers of land and who are practicing farming at any level. In a number of countries many of the farmers are female as the husbands are in wage earning employment elsewhere.

"Farmers' Wives"

Usually taken to mean the wife of a practicing farmer who is living with and assisting her husband in farming, as against a female farmer - i.e. a woman who is a farmer in her own right.

Young Farmers

Usually refers to young people, male or female living on farms who are usually members of some "young farmers'" organization.

RECRUITING OR SELECTION OF TRAINEES

These terms are in common use in most countries to describe the process of persuading farmers and their wives to attend courses at the training centres.

FOLLOW-UP

This term has developed a broad meaning to cover a whole variety of after course visits to farmers, wives etc. who have attended courses.

EVALUATION VISITS

Visits to farmers after courses by the teaching staff of training centres to evaluate the effect of their teaching.

ABBREVIATIONS

RAO	Regional Agricultural Officer
PAO	Provincial " "
PDA	Provincial Director of Agriculture
PTO	Provincial Training Officer
DAO	District Agricultural Officer
AAO	Assistant " "
AA	Agricultural Assistant
JAA	Junior " "
FTC	Farmer Training Centre
RTC	Rural Training Centre
DFI	District Farm Institute
FI	Farm Institute
DVO	District Veterinary Officer

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